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THE



AN ILLUSTRATED  
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## THE DISTRIBUTION OF FISHES.

By WILLIAM C. HARRIS.

The researches of paleontologists indicate that the earliest indisputable evidence of fish life was found in the Upper Silurian rocks in a bed of sandstone near Ludlow, England. As this formation occurred, the physicists tell us, not less than 20,000,000 nor more than 100,000,000 years ago, it will be seen that fishes evidently preceded man in the sequence of creation, and rank in age immediately after the invertebrates, as evidenced by the discovery of the remains of mollusks, annelids, etc., in the earliest geological formations, the simplest forms of life being the first created.

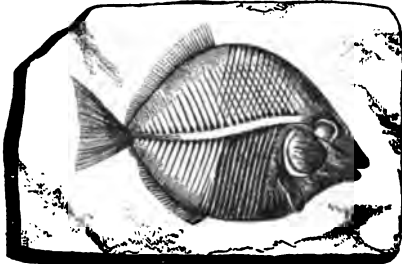
The fossil remains of fishes found in the silurian rocks consisted of fragments of spines, scales and coprolites or excrement deposits, which many paleontologists identify as those of a fish allied to or of the same class as the selachii or sharks, rays and sawfishes of the present era. Others, however, believe these Ludlow fossils to be those of the sturgeons or ganoids, the remains of which appear in considerable numbers in the later formations—the Devonian or old red sandstone. Thus we see that scientists differ, as they have always done and will do, when their deductions are based on analogical lines. But be this as it may, finding of fossils is indicative of death, not life. The era of creation and period of existence of the animals under consideration are at best conjectural, hence a layman at sea on the great drift of scientific debris may be pardoned for believing that the principle of compensatory cannibalism which has prevailed among the lower animals since the historic world began, was equally potent during the earth's mystic

life. That the mollusks, the fossils of which are found in the silurian or primary strata of the palaeozoic age, were coexistent with and lived upon the plant-like animals of the earliest known geologic periods, and that, in turn, the fishes were nourished by the mollusks and zoophitic animals, and that the great physical demands of the huge batracians of the Jurassic seas were supplied by fishes, mollusks and zoophites, and plenty of them, which the beneficent economy of Nature furnished, just as it does now to the modern ravagers of the waters by giving them in countless numbers the minnow and the menhaden. In a word, science would seem to be all adrift as to the birth, sequence and periods of organic life on the earth's surface. Metamorphic action, the influence of heat and pressure on the primary rocks, was and is a potent factor in upsetting the theories of physicists by effacing or transposing fossil remains, and the angler-naturalist must be content with the knowledge that of all fossiliferous traces of vertebrated life that of the waters is the earliest known to science.

In the Devonian or old red sandstone formation fossil remains of fishes are numerous, and in some instances paleontologists have identified genera; they were mostly ganoids, which constituted the bulk of fossil remains in the earlier geologic formations, but which are now but sparsely represented in the modern fauna of the waters, and are, according to Günther and other eminent ichthyologists, even now undergoing a gradual and total extinction. Fish life undoubtedly swarmed during the Devonian age, as evidenced by strata which

was entirely composed of fish remains, from which it is said a peculiar, "an unearthly and fish-like" odor is emitted when the fossils are disturbed by the hammer and chisel of the geologist.

From the Devonian through all the successive ages to the Cretaceous, the ganoid fossils predominate, with traces here and there of those of the teleosteri or the so-called true fishes, the remains of which in the latter formation become plainly recognizable. Later on, in the Tertiary period, we find the teleosteri compose the bulk of the fossiliferous remains, crowding out the selachian fossils and leaving but few traces even of the ganoids, and what



A FOSSIL GANOID FROM THE UPPER OOLITE.

are left either belong or are closely allied to existing forms of the sharks, rays, etc.

Of the remains of the true fishes, so-called, found in the Tertiary period, many are identical with those existing to-day, and as our knowledge of living forms distributed in the world of waters increases, it will probably be found that modern fish fauna has existed for ages beyond the life ascribed to it by geological research. The life-devouring glacial disturbance in the Tertiary period sweeping primeval Nature from the face of the earth, left comparatively undisturbed the denizens of the seas.

But if we have only the faintest clues to the life history of fishes during the prehistoric ages, our knowledge of them in the Nineteenth Century has become greatly extended through the energy of individual research, liberal governmental aid and the enthusiastic interest taken in the subject by intelligent and observing anglers. In the waters of North America alone it has been found that about fifteen hundred species are resident or transient visitors,

and that nearly thirteen thousand species are known to exist in the waters of the world, and newly-discovered genera and species are being constantly added to this list.

In the general distribution of fishes we find nearly twenty-five hundred species that may be classed as of the fresh water. In this number, however, are included the anadromous fishes, or those which periodically visit the fresh water for spawning purposes only. It is difficult to draw the line between fresh and salt-water genera, as many fishes taken by anglers visit the fresh waters with no apparent object except that of feeding. This is notably the case with the striped bass or Southern rockfish, which has been captured on rod and reel one hundred miles or more above tide water. The white perch is also taken in great numbers in fluvial waters above the tide boundaries, and the tarpon or silver king visits and is killed in the wonderful springs that create several rivers in Florida.

Again, some of our fresh-water species find a congenial habitat in the salt or brackish waters, and this trait is strikingly illustrated in the brook trout of Long Island, Massachusetts and other sections, and most strikingly so in the Dolly Varden, the black-spotted and other trouts of the Pacific slope. The anglers of the city of Baltimore are familiar with the so-called pike of the Chesapeake Bay, which is the Eastern pond pickerel (*Lucius reticulatus*) of Greenwood and other fresh-water lakes located east of the Alleghenies. In some of the bays and estuaries of the New Jersey coast this pickerel exhibits the same inclination for a salt-water life. The black basses also find the brackish waters congenial, and this peculiarity is not confined to the large-mouthed bass of Florida, which is often taken in salt waters on the incoming of the tide, but is equally strong among the small-mouthed species of the Susquehanna River, which are often captured on the flats at Havre de Grace, the world-renowned resort of the canvas-backed duck. We have killed our share of these birds and boated a dozen of small-mouths on the opening day of the gunning season, our fields for each performance being but a mile distant one from the other.

The above are but a few instances of an inclination among fishes to exchange "bitter" for "sweet" waters (as the German anglers aptly term them) and *vice versa*. Some species of the flounders, the herrings, smelt, eels, sturgeons, sharks, rays and others might be cited as exhibiting the same inclination, and within the last few years a genuine striped bass (*Roccus lineatus*), weighing over twenty pounds, was found in a land-locked pond near New York City, where it had evidently lived for years in happy contentment and vigorous life. This no doubt was a case of involuntary imprisonment.



FOSSIL FOUND IN THE TERTIARY PERIOD, ALLIED TO THE HORSE MACKEREL.

In connection with these modern instances of the remarkable adaptability of fish to changes of habitat, the geological transformation during the glacial period relegated salt-water districts into fresh and *vice versa*. Thus for many thousands of centuries the conditions under which fishes exist have been subject to modifications, and, in many cases, radical and com-

plete reorganization. The result occurs that a few genera, such as the yellow perch, pike, sturgeon, salmon (*S. salar*) and others, are broadly distributed over Europe and the temperate parts of Eastern North America. On the other hand, we find a species here and there of remarkably restricted habitat, such as the *Lepidosiren paradoxa* (one of the catfishes and a peculiar one), which is found only in a secluded section of the Amazon system. Thus it will be readily seen that a great increase in our present knowledge of fishes is necessary to determine with any accuracy their relative generic distribution in the waters of the earth.

The number and species of fishes living habitually in the salt waters of the world can only be approximately estimated, probably about ten thousand. Those classed as "shore fishes" live, as a rule, close to the surface and near the land, and are well known to the salt-water angler in his outings as the weakfish (*Cynoscion regalis*), the striped bass (*Roccus lineatus*), the kingfish (*Menticirrhus saxatilis*), etc. Of the shore fishes there are about four thousand species. The "pelagic fishes," or those that inhabit the upper waters of the seas, are relatively few in number. The "deep sea fishes," which live in depths varying from two hundred to twenty-five hundred fathoms, cannot be even approximately estimated, as new species are being constantly discovered. It must be borne in mind that these divisions cannot be sharply defined, as the shore, pelagic and deep sea fishes have been found passing into each other's territories, as is the case with many of the so-called fresh-water and marine species. In fact, it seems idle to attempt to draw arbitrary geographical lines of habitat, as the distribution of fishes would seem to be constantly going on, being subject to the influence of water spouts and floods, and the deposition of fish spawn by aquatic birds and insects, and the migrations of some of the catfishes, eels and others which are able to travel overland to waters, the trend of which finally carries them long distances from their former habitat.

## AMATEUR FLY TYING.

By S. K. PUTNAM.

"You see the ways the fisherman doth take  
To catch the fish; what engines doth he make?  
Behold! how he engageth all his wits,  
Also his snares, lines, angles, hooks and nets."

—*John Bunyan.*

There have been so many articles written on the subject of fly tying by amateurs, so many arguments against it and so few really in favor of it, that I have determined to render what little assistance I can to what, at the present time, appears to be the weaker side of the question. We none of us like to be laughed at, and the ridicule heaped upon those who have aspired to manufacture their own materials by that class who are either too lazy to learn or don't care, and who hide themselves under such words as "life is too short" and kindred sayings, has jeered many out of the notion, just as though it was something of which they might have been ashamed. All this, together with the arguments emanating from that class of manufacturers of cheap and useless fishing tackle, has deterred many fishermen, who at different times were inclined to learn to help themselves.

I claim that it is not only possible and easy, but absolutely necessary, for all fishermen to learn to dress their own flies. By the word "fisherman" I mean all that that word implies. I do not have reference to that miserable set of beings who fish because "it is just the thing, you know," to belong to a fishing club and go fishing; but I refer to those who fish for the love of the sport.

I have no antipathy against the reputable professional fly-tyers and tackle dealers, but have many warm friends among them, and by urging my claim I do not think they will make any less money or do any less business in the end. The only sufferers will be the dealers in and manufacturers of all the cheap trash that is sold to the ignorant under the name of "fishing tackle." Knowing how to dress a fly enables one to become a judge of flies, and then he is in no danger of having a lot of worthless stuff palmed off upon him by some unscrupulous dealer, as is now often the case. This

fact alone should urge the reputable dealers to fall in line as advocates of the practice, for it would kill to a great extent the manufacture of immense quantities of material which is of no possible use to any one, the sale of which undoubtedly lessens the business of the honest dealer, as people, knowing nothing about its structure, are inveigled into buying it.

I have yet to meet the reputable dealer who will not lend encouragement by giving points to any of his customers who wish to learn the art. My first lessons were given me years ago by one who was then, and is now, at the head of one of the largest fishing tackle houses in the United States. Even should an occasional fisherman make up his mind to tie all the flies he uses, there are very few, or none, who are able to accomplish it. It is tedious work, although extremely fascinating, and the writer, who pretends to tie all his own flies, often finds at the last moment that his book is wanting in a few flies of certain kinds, and he drops into the first reputable fishing tackle store and buys what is necessary.

Many times have I been fishing when the trout would not rise to any fly that I attempted to lure them with, but would keep jumping all around me for some certain little insect that appeared upon the water. I have often caught one of these little flies, waded ashore and in a few minutes tied—roughly, to be sure, time and circumstances would not permit otherwise—a good imitation from a little package of feathers and other materials that I always carry in my pocket when I "go a-fishing," and again entering the stream, get a rise almost the first cast. Then do I feel that it is well and good to "know how," and I have a heap of satisfaction in knowing that in spite of the trout being too smart and wary to take any of the contents of my well-filled fly book, I can still drop them a choice morsel that they will jump at. I am positive that you, my reader, have been caught in the same fix, and not "knowing how," you have been obliged to catch one of the insects and mail it to your fishing tackle man in New

York or elsewhere with instructions to tie a dozen flies like it at once and send them to you by return mail, only to find by the time you receive them that the trout have changed their food and are no longer rising to what is then an extra and unnecessary dozen of flies. How aggravated you feel that after all your trouble and expense you missed the trout. This circumstance alone should decide you to learn how to make your own flies.

But fly dressing, like fly casting, cannot be learned in a day. It requires lots of practice and an immense display of that virtue that all fishermen have—patience. Like casting a fly, some learn it in a few lessons and only require a little practice, while others never accomplish it. Now is a good time to commence, as much can be learned and plenty of time be had for practice during the long evenings of the coming winter.

The seeming great bugaboo of all would-be fly-tyers is materials. Don't let this trouble you, as there are materials in abundance to be obtained if you go at it right.

I have no doubt but that you have many times seen a large trout in some pool in the stream you fish that has defied all your previous efforts to get him to rise. Finally you get "mad" and make up your mind you are going to get that trout "if it takes all summer," and you settle down to business, fishing for that wary old fellow. After many vain trials some fine day you drop a choice tidbit over his nose and he, not being able to stand the temptation, snaps at it and finds his way to your creel. Just exhibit a little of this determination and patience and you will obtain all the necessary material and become a fly-dresser.

It does not require much material to start, as you will at first confine yourself to trying your hand at simple flies, but after you get more expert in tying and attempt more complicated flies, then you probably will have more or less trouble to get exactly the materials you need. However, as I said before, use a little of that determination and patience you exhibited while fishing for that sly old trout, and you will come out all right.

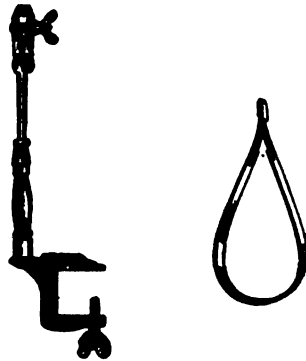
The following few lines, written by John Gay

and published in 1720, will give a good idea of what materials are required :

"To frame the little animal, provide  
All the gay hues that wait on female pride;  
Let Nature guide thee. Sometimes golden wire  
The shining bellies of the fly require.  
The peacock's plumes thy tackle must not fail,  
Nor the dear purchase of the sable's tail.  
Each gaudy bird some slender tribute brings,  
And lends the glowing insect proper wings.  
Silks of all colors must their aid impart,  
And every fur promote the fisher's art.  
So the gay lady, with expensive care,  
Borrows the pride of land, of sea and air :  
Furs, pearls and plumes the glittering thing displays,  
Dazzles our eyes and easy heart betrays."

I never have used any of the sable's tail. It is very expensive, and there are many things to take its place.

First of all get a box to keep your materials in to prevent them from becoming scattered



and lost. I use a tin cash box  $7\frac{1}{2} \times 10 \times 4$ , but this is probably larger than you will need at first. The tools required are a small jeweler's vise with jaws not more than half an inch wide and with an attachment to fasten it to the table; a pair of small sharp-pointed embroidery scissors, a pair of long pointed pliers and a small steel stiletto. A good big needle will answer the purpose for the latter. To this you might add later a pair of spring steel nippers (your tackle dealer will get them for you), although I very seldom use these or the stiletto.

As for materials you will of course need a small assortment of Sproat hooks—they are the best—and silkworm gut. Your tackle dealer will furnish these. A skein or two each of several colors of silk floss—get waterproof if you



can—and the same quantity of as many colors of fine chenille. These, together with a spool of ordinary sewing silk, any dry goods store will furnish you. Nearly all fly-tyers will tell you to use the same colored binding silk as the body of the fly you are tying. Don't bother with this, as all the fancy "frills" may be acquired after you have learned to tie an ordinary fly. Now as to feathers:

In each poultry stand in either Fulton or Washington Market you will find one employe who saves all the hackles that he can get for just such customers as you are. Patronize him; a few cents will buy all you need. Be sure and get plenty of white and red hackles—those from the neck of capons or game cocks are the best. However, take as many varieties of hackles as you can get, as no fly can be made without these feathers. You will also need plenty of gray mallard duck—the gray breast and the few dark brown shaded feathers that grow on the body just back of the shoulders. Next get as many colored tail feathers from the turkey and pigeon as you can. All these, as well as some from the guinea hen, and also some white and assorted chicken tails, may be obtained in the market.

Next visit your fishing tackle man and ask his assistance in getting some gold and silver tinsel and mohair, the latter dyed all colors. You can do without the last-named at the start, but, as you will have to use it eventually, you might as well start with it. A small piece of shoemaker's wax added to your collection, and you have all that is necessary to commence with, as the great thing is to learn "how," then you may add what you please. If your tackle man feels kindly disposed toward you when he learns what you are about, he will probably make you up a little package of scarlet ibis, wood duck and blue and yellow (dyed) swan or egret feathers, also a little peacock herl, and any other little odds and ends that he may think will come handy to you.

At just about this stage you might go through your wife's work basket and appropriate any bits of color you can find. If your folks happen to be cleaning house keep a lookout for any stray ravellings of carpet or anything else of color. Remember that *everything* goes into

the fly box. If you have any acquaintance either in a taxidermist's shop or in a feather or millinery store, cultivate him or her at once, and get all the odds and ends that would otherwise go to waste. Remember that "Each gaudy bird some slender tribute brings." From this time forth you must think of fly materials all the time. Wherever you go keep a lookout for whatever stray bit of anything you may see that can possibly be used in a fly. This means nearly everything.

All of the above will have taken probably several days to accomplish, and just about this time one of the little vexations of life will be likely to occur. Your wife (if you have one) will remark to a lady friend or caller that "my husband has dismounted from his old hobby and is now going to tie artificial flies to fish with." The lady friend, who probably don't know an artificial fly from a grindstone, or who never saw a fish away from her own dinner table, will immediately ask, "What's that?" Then your wife will produce your box of fly materials and expatiate upon the merits of fly tying in general, and during the controversy your materials will get most unmercifully mixed up. If you should happen in about this time and attempt to explain, you will be listened to by the caller with wonderment, and she will go away shaking her head and tell all the neighborhood. Upon receipt of the news of course all the neighbors will call to see the "box," and offer their sympathies to the wife of that "crank" and "lunatic" who imagines he can tie "those things" together and catch fish with them. All this is very conducive to good temper, but all fishermen are good-natured and should not mind a little thing like this. Just keep your temper and "saw wood." When you have progressed far enough to lay in a few of the scarce and expensive feathers, as will be mentioned hereafter, you will get a box with a lock on it and carry the key in your own pocket.

I know an amateur fly-dresser who lives—well, not far from the city of New York—and who always accompanies his wife when she goes shopping for hats. He makes it a point to advise her to select this or that hat that he, with an eye to business, knows is trimmed with

such feathers as will come of use in his "fly box" after the season for wearing the hat has passed. What a long head this fellow has; he knows he will have to pay for the hat anyway, and he "kills two birds with one stone." His good little wife is never tired of telling her lady friends how particular her husband is in regard to her hats; that he must always go with her and help her select. She knows that the trimming eventually finds a resting place in the fly box, but she does not dream that it is picked out with that end in view. I give this little incident as a hint only; take advantage of it or not, just as you please.

I will now attempt to explain in as simple a manner as possible my method of dressing artificial flies. As I am only an amateur, my way of working will possibly be scoffed at by the professionals, but it is an honest way, and turns out flies that will lure the fish. They might not sell when placed in a glass case

alongside of the professional fly, but they appear when they are finished as they do when in use, for the wings are not dipped in dextrine or some other colorless sticky substance to keep them in shape until they are sold and in the water.

Locke says in this discourse on the human understanding: "The only sure way of making known the signification of the name of any simple idea is by presenting to his senses that subject which may produce it in his mind, and make him actually have an idea that word stands for." Although I am a very poor draughtsman at best, I will attempt to furnish a few drawings from time to time, the better to convey my meaning. I will first describe my method of dressing a simple fly, then go on to the more complicated ones, and finally, giving you a description of most of all the flies in general use, leave you to go on by yourselves.

[TO BE CONTINUED.]



## BY MEMPHREMAGOG.

By CHARLES HALLOCK.

Lake Memphremagog (Magog for short) is thirty miles long, and lies half in Canada and half in the United States, and there is always a spice of romance to the young excursionist in crossing the imaginary boundary line which stretches from shore to shore between the two countries. I doubt if it would be half so exciting were it palpably defined. Crossing the equator is not more trying to the naval apprentice than the custom house ordeal is to the navigator of these inland waters; and although officials are civil, and even lenient as to tobacco and spirits, the apprehended tax on guns and fishing rods rises up before the unsophisticated sportsman like the grim visage of old Neptune coming over the fore chains. Nevertheless I am inclined to think the apprehension more of a bugbear than a terror, having never heard of any inhibition to a sportsman's spending his ducats on the Canadian side during an outing or a summer sojourn.

It is always sad to contemplate the fag end of anything, especially the fag end of a watering place season, and I am sure the lake seems deserted, and the Owl's Head and Mt. Oxford more than dreary, since the Lady of the Lake hauled off. The islands, also, have a weird and lonesome look as they loom up in the mirage of the autumnal haze which rests on the water, and the long, gaping galleries in front of the hotels seem like ghost walks. The low of the cattle along the shores has a hollow sound, and the moon rests on the water like a phantom. Few rowboats are afloat, and there seems to be no life stirring anywhere—no ducks, no fish leaping, no restless sandpipers on the land wash, not even a kingfisher. And appearances do not belie the facts. You cannot stir a fin in these waters while the sun is crossing the equator, and all the birds in the woods lie low. Even the crow and the bluejay hold their tongues, and the tap of the woodpecker is not heard. The sportsman may skitter for pickerel along the lily pads of ponds and rivers and evoke no sign. He may draw his troll along the lake shore without tempting the

smallest response. Black bass, pickerel, perch, mascalonge, lake trout, even shiners, all lie *perdu*. I doubt if even the baby trout in the brooks would look at the juiciest lob ever offered. In the woods it is the same. The partridges hug the cover, and not a rabbit crosses the road. Why is this thus? Verily, why do cocks crow?

All that any naturalist knows about it is that at this off period everything is in a state of quiescence or lethargy. A brisk blow, usually represented by the equinoctial storm, is needed to stir up the dormant energies. This year there has been no such meteorological disturbance, and the transition from summer to autumn has come so gradually as to be hardly noticeable, except by the cooler nights and the less fervid noonday sun. The ducks will now fly one by one as the season passes, and there will be no rushing flight to escape a sudden visitation of nipping frost. The broods of partridges will gradually separate in quest of favored places where the rose buds and high bush cranberries still cling to the twigs; there will be no hustling among the squirrels and rabbits to gather forage for winter hoards; the high-holders and creepers won't have to prod the trees for grubs, because there is plenty of free insect life as yet; and the giant "lunge" will quietly come out of the depths of the lake a month hence to deposit their spawn on the shallows at the outlet, and no one will know of their coming or going unless he is constantly on the alert.

Yet, after all, there is some advantage in lingering through the fag end of a season. It is like sitting up with an invalid. One has undisputed range of the premises. Here at Magog, a little Canadian town at the northern extremity of the lake, I have the best room in the house for a weekly charge that would cause a millionaire to curl up with disgust. All the summer guests have departed since three weeks ago, and only a stray sportsman or an occasional commercial traveler heaves in sight. The banquet hall is deserted, and the pickles grow

stale in the jar. The croquet set is scattered over the lawn, and the hammocks which swing in the wind are like "two-year-old bird nests with holes in the bottom." The boys have snatched the last apples from the trees, and there are only pumpkins left in the garden. At evening, in the full light of the harvest moon, I pace the tenantless verandas which overlook the placid arm of the lake, and trace the gleaming bridge of light which spans it, and the reflection of Jupiter sparkling in the depths. In warm afternoons I loll in the sun, with old Sport, the house dog, curled up beside me, and watch the colors deepen in the woods. Every day they grow brighter and more intense, and a fortnight later will blaze with supernal radiance.

Meteorologically, this September has been the most charming month of the whole year. August, they tell me, was overcast, damp and disappointing, but every lapsing hour of this beneficent interregnum seems to vie with its predecessor in emulation of the perfect day. There is just enough air stirring to keep the atmosphere pure. The lake surface is like a mirror for the most part, though an occasional whiff from the northward will ruffle it momentarily, or a southerly breeze rides in on the feathery crests of following waves. But, be it breeze or zephyr, the alternation is always agreeable, and one cannot help wondering whether there can be any better world than ours in its best moods.

I have often marvelled why there are not more laggards among the departing summer guests, and why the homeward bound do not more often loiter by the wayside. By what law of equivalents do they hasten to exchange the certainties they have for hypothetical delights they know not of? This Magog has certainly remarkable advantages of location. Notably has it the permanent attractions of Lake Memphremagog and Mt. Oxford always before it, with vast expanses of unbroken wilderness to the northward and eastward, and numerous trout streams and partridge coves to engage the sportsman's attention, but it is central to many of the most noted resorts in this part of the continent. It is within six hours' ride of Montreal, Quebec, the Adirondacks, Lake

Champlain, the White Mountains, Lake Megantic, Moosehead Lake, Chaudiere Falls and Lake Winnipissigee, so that one can change his base *ad libitum* when the other grows irksome, and it has the advantage also of cheapness, and, to some degree, of novelty, for it has within ten years past become a characteristic French Canadian town, being populated by the families of seven hundred mill operatives who have moved in for employment.

For my own part, I am learning to choose these simple 'by-places, apart from the public swim; and though I do not get as much glitter, I am confident that I get ten-fold the amount of enjoyment for my money that most men do. Drifting about, almost aimlessly, I slip into many a quiet eddy and discover many a simple secret that has been hidden away in the shadow, and I can tell you (when I like) of no end of places where the trout hide, as well as where they leap forth into the garish light of day, openly, and by no means loath to show their freckles. I can go not a hundred miles from Montreal where there is no one to gainsay or inhibit, where there is no proprietor, club or cabane, or sign of civilization to divert or obstruct the purpose of the hour, and no warden to intercept, and catch you a wheelbarrow load of two-pound speckled trout in a half day's fishing. I can show you at the proper season, yea, even now, so many trout that the very sight thereof will clog on the eye, and the taste therefor will become a surfeit, so that the angler will presently be ready to exchange trout for smoked herring, pound for pound, and even to pull stakes for home, fatigued and full-fed, like a leech, too plethoric to move.

When I say that I can duplicate the spot and the sport along the entire Laurentian slope between Montreal and Three Rivers, and that all of these places are reasonably accessible to one who will endure a buck-board ride of from fifteen to fifty miles, it will become apparent to you, Mr. Harris, and to all your readers, that the time has not yet come to lament the extinction of *Salmo fontinalis*. It is a great comfort to me at present, in the face of extortions for riparian leases and rod privileges, to be able to leap the barriers like a hound and fly on the wings of volition to the uttermost parts

of the wilderness, where the gilded youth cometh not and the turtle dove mourneth not for her first-born. The consciousness that I am able to do this is more satisfying than the performance, for I cannot bring my catch out in eatable condition, and to catch merely to destroy is not a healthy gratification. But I

will give no clue to vandals, and so I hold my secret for those only who are worthy. Meanwhile I rest at Magog, under the cloud-compelling summit of Mt. Oxford, until the colder weather and the thinning of the leaves give better promise of good shooting.

### FISHING IN THE BAY OF QUINTE.

By "ROD AND REEL."

Tempted by the alluring reports of the fishing that reached me from friends summering on the Bay of Quinte, I made up my mind to take a week's holiday and decide for myself whether the information I had received was well founded. My destination was Belleville, which I reached by way of steamer from Charlotte.

I found Belleville a prosperous town with a population of about nine thousand, and, so far as I could see, mainly devoted and supported by the lumber trade. At Belleville, by arrangement beforehand, I was met by my guide, who informed me that the best fishing was to be had at Trenton, about twelve miles further up the bay. So we shipped on board the good steamer "Varuna," Captain Porte, master, to whom we commend all those who are fond of a good story well told. On arriving at Trenton, which is situated at the mouth of the Trent River, and which town, by the bye, boasts of the largest lumber mills in Canada, I put up at the Proctor House, kept by Mr. Ventress, to whom I am indebted for a comfortable bed and good meals, which, together combined, form after all the principal desideratum of a traveler.

I was surprised to find stopping at the hotel so many people hailing from "the States," and all drawn here by the reports of the good sport to be had. I confess that it was the black bass fishing that enticed *me* to that region, but I found many there who were bent on catching the King of pikes, yclept the mascalonge. I had heard much of this great fish, but had never, to my knowledge, seen one, so was cu-

rious as to their mode of capture. My curiosity was soon to be assuaged, but in a manner I little dreamed of.

Early on the morning following my arrival, accompanied by my guide, I started in quest of that gamy fish the black bass. By 12 o'clock I had succeeded in boating eight, the largest weighing three and three-quarter pounds, the remainder varying from that to two and a half. My outfit consisted of a seven-ounce Leonard split bamboo rod, a Vom Hofe reel with fifty yards of enameled line, a six-foot single gut leader and a No. 2 forged Limerick hook. The bait used was a live minnow. I have fished the waters in many States for these fish, but must give the palm for gameness to the black bass of the Bay of Quinte. In their endeavors to escape I have repeatedly seen them leap from the water four or five times (and on one occasion I counted seven distinct leaps) before bringing them to the net.

Fishing in close proximity to me was a gentleman and his wife from New York. I was attracted by their boat, which for completeness and comfort excelled anything I had ever seen. I learned afterward that it was built at Clayton, on the St. Lawrence, and was but a type of hundreds of others in use by the guides of that section. Both the lady and gentleman were enjoying good luck, and I was particularly struck by the skillful manner in which the lady handled her fish. My guide informed me that she was Mrs. Macpherson, a daughter of the late John Roach, the great shipbuilder. That afternoon I caught eight more beauties,

making sixteen in all for my day's catch, and when I say that I lost four or five more, it may be assumed that I was kept pretty busy for the better part of the day.

I found, on my return to the hotel that evening, that several large catches of black bass were made, and that two mascalonge had been caught. This latter fact was of especial interest to me, as I had, as I have mentioned before, never seen one, although I had heard much of their game qualities.

The two fish were laid out in front of the hotel, where they soon became the cynosure of a hundred pairs of eyes. They weighed, so I was told, twenty-five and thirty-one pounds respectively, and were caught by a New York gentleman. They were fine fish, reminding me more of a gigantic pickerel than anything else. That evening I entered into conversation with one of the guides, and was by him shown the means used to capture these monsters. Never was I more surprised. Here is a fish of whose game qualities I had read much and heard more, angled for and caught in the most unsportsmanlike manner conceivable. As near as I can explain it, the *modus operandi* is as follows: Two stout poles, about ten feet long and an inch and a half in diameter at the butt, tapering to about an inch at the tip, are outrigged from either side of the boat just in front of the angler (Heaven save the mark), who sits in the stern. Attached to each of the poles is a line very similar to the handline used in catching codfish. Attached to this line is a spoon, the favorite for these waters being a No. 8 or 9 Skinner. The line in length varies from seventy-five to a hundred and twenty-five feet, according to depth of water fished in. At extreme end of each pole is a small bell. As soon as a fish strikes the spoon the bell rings,

and the "sportsman," by means of a guy line, begins to pull the fish in hand over hand. As I was informed by one of these lovers of mascalonge fishing, here commences the tug of war, and that "much skill is needed to play the fish." Great Scott! fancy fishing for salmon with a clothesline, or fancy Mr. Heckscher or Mr. French taking a boat and trolling for striped bass at Newport in like manner! Ye gods! think of it! Here are men who for hours together will descant on the game qualities of their favorite fish, of his terrific leaps clear out of water, of his lightning-like rushes, his downward plunges, etc., *ad infinitum*, and then, in order to beyond all question firmly implant in every one's mind that he is *par excellence* the king of all fresh-water game fish (always barring salmon), they go out and fish for him with a handline!

Can inconsistency go farther than this? I question it. Now, if real sport is what these lovers of the mascalonge want, the means are simple. All that is needed is a rod such as is used for striped bass fishing, a hundred yards of good Cuttyhunk line, a large multiplying reel, and for bait, either a live perch or, if prepared, a medium-sized Skinner spoon. Fished for in this manner, I have no doubt the mascalonge would afford grand sport, and I earnestly recommend it to those gentlemen in lieu of the very unsportsmanlike procedure they now indulge in.

In writing as I have it has not been my intention to tread on any one's toes, but it seemed to me a pity that men whom I found such good fellows, and who were evidently fond of the "gentle art," should allow themselves to be led away by such mean devices in pursuit of their favorite sport.

## SALMON FISHING IN LABRADOR—A NEW THEORY.

By ALEXANDER DENNISTOUN.

During my annual salmon fishing excursion last summer to the rivers on the Labrador coast flowing into the Gulf of St. Lawrence, a discovery was made by me which seems to be an important contribution to the natural history of salmon frequenting these waters. Notwithstanding my having made some twenty fishing excursions to these magnificent rivers, landing on an average not less than five clean fish for every day's fishing during these years, I only last summer accidentally learned a very interesting fact, which I record for the information of all who are interested in the subject.

In the first week of last July we left the river Mingan, my fishing headquarters for the season, to examine and explore a small river named Tupitagan, and to test its fly-fish capabilities. The Indians at the Hudson Bay Company post of Mingan had informed me that this never was frequented by salmon. On it were a number of good-looking pools. From its small size and rather out-of-the way situation, fly fishing there had never been tried, though all the larger and better known rivers of the coast had been successfully fished for many seasons. The weather during the previous fortnight having been dry and hot, we found the water low and warm. Under these circumstances it was only tried for one day, without success.

The Government lessee of the net fishing for salmon in the tidal waters near the mouth of the river was a very intelligent French Canadian named Girard, who came to my tent near his house to have the usual chat about fishing matters. During our discussion as to the fact whether salmon which had once entered the fresh water of the river often returned to the salt water again before making their final ascent to their spawning grounds, he asserted that such was undoubtedly the case; that he had completely proved the correctness of this statement, judging not only by the color and general appearance of the fish, but by a far more efficient test. He stated that as soon as they entered fresh water they began to lose their teeth, and when they had been some time

in it they had lost all of them. He said if he had fifty salmon handed to him in a dark room, some from the river and some from the sea, he could easily separate them into two lots—those without teeth from the river and those with teeth from the sea, and that the color and general look of the fish, when examined by daylight, would confirm his selection.

Having caught with the fly more than 2,000 salmon on that coast; having previously known or met most of the gentlemen who for the last twenty years had fished various rivers of that territory; having come in contact with many lessees for net fishing salmon and read most of the books on the natural history of this fish, without hearing or reading any statement to this effect, I thought the man was chaffing me, and probably intimated as much to him. He then good-naturedly called one of his children from the adjacent house and told them to bring from his salmon storehouse the two fish they had that morning taken from his nets. This was done, and when examined, one, bright as silver, evidently from the sea, had a formidable mouth full of sharp teeth; the other, which had lost much of its brightness, and had all the signs of having been in the river, had scarcely a tooth in its head—a few quite loose odd teeth being all that were visible. My next question to him was naturally, "How did you make this discovery?" His answer was curious, showing in how simple a manner such problems are often found out. His statement was this:

"One Saturday afternoon, some three years ago, I went to tie up my nets for the weekly close time, and found in them two salmon, just such as are lying there before us. I gave one of them to my ten-year-old girl, who had accompanied me, to carry to the house. Presently she remarked: 'Dad, this fish has no teeth!' This led me to examine it carefully; it was evidently, by the color, a fish that had been some time in the river, and it was toothless. Since that time I have carefully examined all fish caught in my nets, and found the result always the same."

The following day we left that river for the mouth of the St. John, and, after a delay of two days, ascended it in canoes some twenty miles to its noted pools. We had at this time twenty-

four hours of welcome, heavy rain, which raised the river two feet and brought down the temperature of the water, giving us a splendid chance for the next ten days, during which my nephew and self landed 160 fish and hooked and lost some forty to fifty additional ones. All of these were most carefully examined, with the result that nearly all were quite toothless. A few of them, evidently later from the sea, had some straggling, loose teeth. These pools we fished were between twenty-five and thirty miles from the sea, and salmon had begun to reach them five or six weeks before the date of our visit. Some of those we caught had therefore been a long time out of the sea. We then returned to the Mingan River and caught some forty more fish. A careful examination of them gave the same result as on the St. John. Before leaving Mingan for the Tupitagan we had caught there some fifty fish, in addition to some half dozen kelts, but being then ignorant of the toothless problem, the mouths of none of them were examined, and, as we were at that latter season unable to obtain any kelts, could get no evidence as to the regrowth of their teeth.

At the Mingan Post of the Hudson Bay Company there was an opportunity of examining a number of the hunters of the Montagnais Indian tribe, who all confirmed the statement that salmon lose their teeth soon after entering fresh water. When cross questioned on the subject they answered: "It is just the same as deer lose their horns, bears, martens and other animals their fur, and lobsters change their shells every year." It seems almost incredible that this fact, of which we obtained such ample evidence, and which a slight amount of observation would have easily detected, has been overlooked by so many experienced professional and amateur fishermen. I have conversed with many of both classes on the coast and since my return, but none were aware of this peculiarity. This in the case of fly-fishermen may in some measure be accounted for; when a fish has been gaffed or landed by a net they leave the detaching of the hook to the gaffer, and therefore do not see the mouth of the fish.

It is to be hoped that during the coming fishing season in Canada and elsewhere this problem will be thoroughly investigated and

reported on, especially in the case of kelts. What may be the case of salmon in the rivers of Great Britain others must demonstrate, but if found to correspond in any measure with those of the rivers of Labrador, the fact may have a most important bearing on the much argued question: "Do salmon feed in fresh water?" The mouths of the toothless salmon we caught could have no holding power over small fish—one's hand could be rubbed hard along both upper and lower jaw without the least obstruction, while a salmon, if caught in or just out of salt water, would in like circumstances cut the hand severely.

My visits to Labrador during the summers of 1889 and 1890 proved that there is a great diversity during a whole season in the freedom with which salmon will take an artificial fly. In both these years the salmon in all these rivers seemed to be equally numerous; but the season of 1889 was probably the worst on record, while 1890 was one of the best. Take the three following rivers as examples: The Godbout was fished by the same three rods both seasons, and for about twenty days on each occasion; the first-named year the score was about 200 fish, the last year 503. I partially fished the Mingan River both years, and certainly three fish could have been taken in 1890 for one in 1889. The river Romaine gave a still more marked difference. In 1889 it was fished by two gentlemen from the north of England; both were skillful, experienced and enthusiastic fishermen. Their score only reached some forty-five fish. Several, however, weighed over forty pounds. Last summer the river was leased and fished by an American gentleman—the only rod on it, except for two days, when he was absent. His score for some fifteen days' fishing was 103 fish landed, and many large salmon lost. During his two days' absence two friends of his caught forty fish. The report made to me by the guardian of the river was that, during 1889, time after time, five, ten or even fifteen rises would be made at the fly without one fish being hooked; while in 1890, during all the season, they took the fly freely.

The Romaine is a large, noble stream, probably the most sporting river in the world



## THE AMERICAN ANGLER.

Upon it I have had many red-letter days in years gone by, the score on one of which I may here mention. I landed at the river about noon on one of the early days of July, some eight years ago. No one had fished it that season, and before dark I had landed one of thirty-six pounds, one of twenty-six pounds, two of twenty-four pounds and four of twelve pounds. On that day every fish that rose was hooked, and every fish hooked landed—a wonderful piece of luck. There was not a minute's rest from almost the first cast till the last fish was landed, when nearly dark; then I was obliged to return to our steam yacht, being exhausted, and very sad at having to leave the river. Every salmon fisher knows there are days on and days off without any apparent reason; but in the two years above mentioned this was a marked characteristic not of the days, but of the whole season.

It may be well to close these remarks with the information that, at a sale held at Quebec in January, 1890, conjointly by the Government

of Quebec and the owners of the seigneurie of Mingan, ten-year leases for fly fishing for salmon on all the rivers of the Labrador coast were disposed of by auction. The largest and best-known rivers were leased either to gentlemen or fishing clubs from the United States; consequently, it is now nearly impossible for an outsider to rent first-class salmon fishing on the north shore of the St. Lawrence in Canada.

Some interesting details of the individual scores made on these rivers during the last twenty years might be here added, but such an extension of this article would be inopportune. In order to give some idea of what the fishery has been, I will quote my scores during the two best seasons I have had, viz.: 186 fish, averaging  $12\frac{1}{2}$  lbs., in nineteen days' consecutive fishing during the summer of 1873, and 174 fish, averaging  $10\frac{1}{2}$  lbs., in twenty days in the season of 1888. My highest season's average has been  $17\frac{1}{2}$  lbs. for sixty fish landed in ten days.



## "PLAIN CHRISTIAN TROUT FISHIN'."\*

By FRANK R. STOCKTON.

"Well, sir," said old Peter, as he came out on the porch with his pipe, "so you came here to go fishin'?"

Peter Gruse was the owner of the farmhouse where I had arrived that day just before supper time. He was a short, strong-built old man, with a pair of pretty daughters, and little gold rings in his ears. Two things distinguished him from the farmers in the country round about: one was the rings in his ears and the other was the large and comfortable house in which he kept his pretty daughters. The other farmers in that region had fine large barns for their cattle and horses, but very poor houses for their daughters. Old Peter's earrings were indirectly connected with his house. He had not always lived among those mountains. He had been on the sea, where his ears were decorated, and he had traveled a good deal on land, where he had ornamented his mind with many ideas which were not in general use in the part of his State in which he was born. His house stood a little back from the high road, and if a traveler wished to be entertained Peter was generally willing to take him in, provided he had left his wife and family at home. The old man himself had no objection to wives and children, but his two pretty daughters had.

These young women had waited on their father and myself at supper time, one continually bringing hot griddle cakes and the other giving me every opportunity to test the relative merits of the seven different kinds of preserved fruit which, in little glass plates, covered the otherwise unoccupied spaces on the table cloth. The latter, when she found that there was no further possible way of serving us, presumed to sit down at the corner of the table and begin her supper. But in spite of this apparent humility, which was only a custom of the country, there was that in the general air of the pretty daughters which left no doubt in the

mind of the intelligent observer that they stood at the wheel in that house. There was a son of fourteen, who sat at table with us, but he did not appear to count as a member of the family.

"Yes," I answered, "I understood that there was good fishing hereabout, and, at any rate, I should like to spend a few days among these hills and mountains."

"Well," said Peter, "there's trout in some of our streams, though not as many as there used to be, and there's hills a plenty, and mountains, too, if you choose to walk fur enough. They're a good deal furdur off than they look. What did you bring with you to fish with?"

"Nothing at all," I answered. "I was told in the town that you were a great fisherman, and that you could let me have all the tackle I would need."

"Upon my word," said old Peter, resting his pipe-hand on his knee and looking steadfastly at me, "You're the queerest fisherman I've see'd yet. Nigh every year some two or three of 'em stop here in the fishin' season, and there was never a man who didn't bring his jinted pole, and his reels, and his lines, and his hooks, and his dry-goods flies, and his whiskey flask with a long strap to it. Now, if you want all these things, I haven't got 'em."

"Whatever you use yourself will suit me," I answered.

"All right, then," said he. "I'll do the best I can for you in the mornin'. But it's plain enough to me that you're not a game fisherman, or you wouldn't come here without your tools."

To this remark I made answer to the effect that, although I was very fond of fishing, my pleasure in it did not depend upon the possession of all the appliances of professional sport.

"Perhaps you think," said the old man, from the way I spoke, that I don't believe them fellers with the jinted poles can ketch fish, but it ain't so. That old story about the little boy with the pin-hook, who ketched all the fish, while the gentleman with the modern improve-

\* This pleasing angling story is taken from a book of short stories published by the Scribners.

ments, who stood alongside of him, kep' throwin' out his beautiful flies and never got nothin', is a pure lie. The fancy chaps, who must have ev'rythin' jist so, gen'rally gits fish. But for all that, I don't like their way of fishin', and I take no stock in it myself. I've been fishin' on and off, ever since I was a little boy, and I've caught nigh every kind there is, from the big Jew-fish and cavaloes down South, to the trout and minnies round about here. But when I ketch a fish the first thing I do is to try to git him on the hook, and the next thing is to git him out of the water jist as soon as I kin. I don't put in no time worrin' him. There's only two animals in the world that likes to worry smaller creeturs a good while afore they kill 'em; one is the cat and the other is what they call the game fisherman. This kind of a feller never goes after no fish that don't mind being ketched. He goes fur them kinds that loves their home in the water and hates most to leave it, and he makes it jist as hard fur 'em as he kin. What the game fisher likes is the smallest kind of a hook, the thinnest line, and a fish that it takes a good while to weaken. The longer the weak'nin' business kin be spun out, the more the sport. The idee is to let the fish think there's a chance for him to git away. That's jist like the cat with her mouse. She lets the little creetur hop off, but the minnit he gits fur enough away she jumps on him and jabs him with her claws, and then, if there's any game left in him, she lets him try again. Of course the game fisher could have a strong line and a stout pole and git his fish in a good sight quicker if he wanted to, but that wouldn't be sport. He couldn't give him the butt and spin him out, and reel him in, and let him jump and run till his pluck is clean worn out. Now, I likes to git my fish ashore with all the pluck in 'em. It makes 'em taste better. And as fur fun, I'll be bound I've had jist as much of that, and more, too, than most of these fellers who are so dreadful anxious to have everythin' jist right, and think they can't go fishin' till they've spent enough money to buy a suit of Sunday clothes. As a gen'ral rule they're a solemn lot, and work pretty hard at their fun. When I work I want to be paid fur it, and when I go in fur fun I want to take it easy and

cheerful. Now I wouldn't say so much agen these fellers," said old Peter, as he arose and put his empty pipe on a little shelf under the porch roof, "if it wasn't for one thing, and that is, that they think that their kind of fishin' is the only kind worth considerin'. The way they look down upon plain Christian fishin' is enough to rile a hitchin' post. I don't want to say nothin' agen no man's way of attendin' to his own affairs, whether it's kitchen-gardenin' or whether it's fishin', if he says nothin' agen my way; but when he looks down on me, and grins at me, I want to haul myself up and grin at him, if I kin. And in this case I kin. I s'pose the house-cat and the cat-fisher (by which I don't mean the man who fishes for cat-fish) was both made as they is, and they can't help it; but that don't give 'em no right to put on airs before other bein's, who gits their meat with a square kill. Good night. And since I've talked so much about it, I've a mind to go fishin' with you to-morrow myself."

The next morning found old Peter of the same mind, and after breakfast he proceeded to fit me out for a day of what he called "plain Christian trout fishin'." He gave me a reed rod about nine feet long, light, strong and nicely balanced. The tackle he produced was not of a fancy order, but his lines were of fine, strong linen, and his hooks were of good shape, clean and sharp, and snooded to the lines with a neatness that indicated the hand of a man who had been where he learned to wear little gold rings in his ears.

"Here are some of these feather insects," he said, "which you kin take along if you like." And he handed me a paper containing a few artificial flies. "They're pretty nat'ral," he said, "and the hooks is good. A man who came here fishin' gave 'em to me, but I sha'n't want 'em to-day. At this time of year grasshoppers is the best bait in the kind of place where we're goin' to fish. The stream, after it comes down from the mountain, runs through half a mile of medder land before it strikes into the woods agen. A grasshopper is a little creetur that's got as much conceit as if his jinted legs was fish poles, and he thinks he kin jump over this narrer run of water whenever he pleases; but he don't always do it, and then,

if he doesn't git snapped up by the trout that lie along the banks in the medder, he is floated along into the woods, where there's always fish enough to come to the second table."

Having got me ready, Peter took his own particular pole, which he assured me he had used for eleven years, and hooking on his left arm a good-sized basket, which his elder pretty daughter had packed with cold meat, bread, butter and preserves, we started forth for a three-mile walk to the fishing ground. The day was a favorable one for our purpose, the sky being sometimes overclouded, which was good for fishing, and also for walking on a high road; and sometimes bright, which was good for effects of mountain scenery. Not far from the spot where old Peter proposed to begin our sport a small frame house stood by the roadside, and here the old man halted and entered the open door without knocking or giving so much as a premonitory stamp. I followed, imitating my companion in leaving my pole outside, which appeared to be the only ceremony that the etiquette of those parts required of visitors. In the room we entered a small man in his shirt sleeves sat mending a basket handle. He nodded to Peter and Peter nodded to him.

"We've come up a-fishin'," said the old man. "Kin your boys give us some grasshoppers?"

"I don't know that they've got any ready ketched," said he, "for I reckon I used what they had this mornin'. But they kin git you some. Here, Dan, you and Sile go and ketch Mr. Gruse and this young man some grasshoppers. Take that mustard box and see that you git it full."

Peter and I now took seats, and the conversation began about a black cow which Peter had to sell, and which the other was willing to buy if the old man would trade for sheep, which animals, however, the basket mender did not appear just at that time to have in his possession. As I was not very much interested in this subject, I walked to the back door and watched two small boys in scanty shirts and trousers, and ragged straw hats, who were darting about in the grass catching grasshoppers, of which insects, judging by the frequent

pounces of the boys, there seemed a plentiful supply.

"Got it full?" said their father, when the boys came in.

"Crammed," said Dan.

Old Peter took the little can, pressed the top firmly on, put it in his coat-tail pocket and rose to go. "You'd better think about that cow, Barney," said he. He said nothing to the boys about the box of bait; but I could not let them catch grasshoppers for us for nothing, and I took a dime from my pocket and gave it to Dan. Dan grinned and Sile looked sheepishly happy, and at the sight of the piece of silver an expression of interest came over the face of the father. "Wait a minute," said he, and he went into a little room that seemed to be a kitchen. Returning, he brought with him a small string of trout. "Do you want to buy some fish?" he said. "These is nice fresh ones. I ketched 'em this mornin'."

To offer to sell fish to a man who is just about to go out to catch them for himself might, in most cases, be considered an insult, but it was quite evident that nothing of the kind was intended by Barney. He probably thought that, if I bought grasshoppers, I might buy fish. "You kin have 'em for a quarter," he said.

It was derogatory to my pride to buy fish at such a moment, but the man looked very poor, and there was a shade of anxiety on his face which touched me. Old Peter stood by without saying a word. "It might be well," I said, turning to him, "to buy these fish, for we may not catch enough for supper."

"Such things do happen," said the old man.

"Well," said I, "if we have these we shall feel safe in any case." And I took the fish and gave the man a quarter. It was not, perhaps, a professional act, but the trout were well worth the money, and I felt that I was doing a deed of charity.

Old Peter and I now took our rods and crossed the road into an enclosed field, and thence into a wide stretch of grass land, bounded by hills in front of us and to the right, while a thick forest lay to the left. We had walked but a short distance when Peter said: "I'll go down into the woods and try my luck there, and you'd better go along up stream

about a quarter of a mile, to where it's rocky. Praps you ain't used to fishin' in the woods, and you might git your line cotched. You'll find the trout'll bite in the rough water."

"Where is the stream?" I asked.

"This is it," he said, pointing to a little brook, which was scarcely too wide for me to step across, "and there's fish right here, but they're hard to ketch, fur they git plenty of good livin' and are mighty sassy about their eatin'. But you kin ketch 'em up there."

Old Peter now went down toward the woods, while I walked up the little stream. I had seen trout brooks before, but never one so diminutive as this. However, when I came nearer to the point where the stream issued from between two of the foothills of the mountains which lifted their forest-covered heights in the distance, I found it wider and shallower, breaking over its rocky bottom in sparkling little cascades.

Fishing in such a jolly little stream, surrounded by this mountain scenery, and with the privileges of the beautiful situation all to myself, would have been a joy to me if I had had never a bite. But no such ill luck befell me. Peter had given me the can of grasshoppers after putting half of them into his own bait box, and these I used with much success. It was grasshopper season, and the trout were evidently on the lookout for them. I fished in the ripples under the little waterfalls, and every now and then I drew out a lively trout. Most of these were of moderate size, and some of them might have been called small. The large ones probably fancied the forest shades, where old Peter went. But all I caught were fit for the table, and I was very well satisfied with the result of my sport.

About noon I began to feel hungry, and thought it time to look up the old man, who had the lunch basket. I walked down the bank of the brook, and some time before I reached the woods I came to a place where it expanded to a width of about ten feet. The water here was very clear and the motion quiet, so that I could easily see to the bottom, which did not appear to be more than a foot below the surface. Gazing into this transparent water as I walked, I saw a large trout glide

across the stream and disappear under the grassy bank which overhung the opposite side. I instantly stopped. This was a much larger fish than I had caught, and I determined to try for him.

I stepped back from the bank, so as to be out of sight, and put a fine grasshopper on my hook; then I lay, face downward, on the grass, and worked myself slowly forward until I could see the middle of the stream; then, quietly raising my pole, I gave my grasshopper a good swing, as if he had made a wager to jump over the stream at its widest part. But as he certainly would have failed in such an ambitious endeavor, especially if he had been caught by a puff of wind, I let him come down upon the surface of the water a little beyond the middle of the brook. Grasshoppers do not sink when they fall into the water, and so I kept this fellow upon the surface, and gently moved him along as if, with all the conceit taken out of him by the result of his ill-considered leap, he was ignominiously endeavoring to swim to shore. As I did this I saw the trout come out from under the bank, move slowly toward the grasshopper, and stop directly under him. Trembling with anxiety and eager expectation, I endeavored to make the movements of the insect still more natural, and, as far as I was able, I threw him into a sudden perception of his danger and a frenzied desire to get away. But, either the trout had had all the grasshoppers he wanted or he was able, from long experience, to perceive the difference between a natural exhibition of emotion and a histrionic imitation of it, for he slowly turned, and, with a few slight movements of his tail, glided back under the bank. In vain did the grasshopper continue his frantic efforts to reach the shore; in vain did he occasionally become exhausted and sink a short distance below the surface; in vain did he do everything that he knew to show that he appreciated what a juicy and delicious morsel he was, and how he feared that the trout might yet be tempted to seize him. The fish did not come out again.

Then I withdrew my line and moved back from the stream. I now determined to try Mr. Trout with a fly, and I took out the paper old Peter Gruse had given me. I did not know

exactly what kind of winged insects were in order at this time of the year, but I was sure that yellow butterflies were not particular about just what month it was, so long as the sun shone warmly. I therefore chose one of Peter's flies which was made of the yellowest feathers, and, removing the snood and hook from my line, I hastily attached this fly, which was provided with a hook quite suitable for my desired prize. Crouching on the grass, I again approached the brook. Gayly flitting above the glassy surface of the water, in all the fancied security of tender youth and innocence, came my yellow fly. Backward and forward over the water he gracefully flew, sometimes rising a little into the air, as if to view the varied scenery of the woods and mountains, and then settling for a moment close to the surface to better inspect his glittering image as it came up from below, and showing in his every movement his intense enjoyment of summer time and life.

Out from his dark retreat now came the trout, and, settling quietly at the bottom of the brook, he appeared to regard the venturesome insect with a certain interest. But he must have detected the iron barb of vice beneath the mask of blithful innocence, for, after a short deliberation, the trout turned and disappeared under the bank. As he slowly moved away he seemed to be bigger than ever. I must catch that fish! Surely he would bite at something. It was quite evident that his mind was not wholly unsusceptible to emotions emanating from an awakening appetite, and I believed that if he saw exactly what he wanted he would not neglect an opportunity of availing himself of it. But what did he want? I must certainly find out. Drawing myself back again, I took off the yellow fly and put on another. This was a white one with black blotches, like a big miller moth which had fallen into an ink pot. It was surely a conspicuous creature, and as I crept forward and sent it swooping over the stream, I could not see how any trout with a single insectivorous tooth in his head could fail to rise for such an occasion. But this trout did not rise. He would not even come out from under his bank to look at the swiftly flit-

ting creature. He probably could see it well enough from where he was.

But I was not to be discouraged. I put on another fly, a green one with a red tail. It did not look like any insect I had ever seen, but I thought that the trout might know more about such things than I. He did come out to look at it, but probably considering it a product of that modern æstheticism which sacrifices natural beauty to mediæval crudeness of color and form, he retired without evincing any disposition to countenance this style of art.

It was evident that it would be useless to put on any other flies, for the two I had left were a good deal bedraggled, and not nearly so attractive as those I had used. Just before leaving the house that morning Peter's son had given me a wooden match box filled with worms for bait, which, although I did not expect to need, I put in my pocket. As a last resort I resolved to try the trout with a worm. I selected the plumpest and most comely of the lot. I put a new hook on my line. I looped him about it in graceful coils and cautiously approached the water, as before. Now a worm never attempts to wildly leap across a flowing brook, nor does he flit in thoughtless innocence through the sunny air and over the bright, transparent stream. If he happens to fall into the water he sinks to the bottom; and if he be of a kind not subject to drowning, he generally endeavors to secrete himself under a stone or to burrow in the soft mud. With this knowledge of his nature I gently dropped my worm upon the surface of the stream, and then allowed him slowly to sink. Out sailed the trout from under the bank, but stopped before reaching the sinking worm. There was a certain something in his action which seemed to indicate a disgust at the sight of such plebeian food, and a fear seized me that he might now swim off and pay no further attention to my varied baits. Suddenly there was a ripple in the water and I felt a pull on the line. Instantly I struck, and then there was a tug. My blood boiled through every vein and artery, and I sprang to my feet. I did not give him the butt; I did not let him run with yards of line down the brook, nor reel him in and let him make

another mad course up stream. I did not turn him over as he jumped into the air, nor endeavor in any way to show him that I understood those tricks which his depraved nature prompted him to play upon the angler. With an absolute dependence upon the strength of old Peter's tackle, I lifted the fish. Out he came from the water, which held him with a gentle suction as if unwilling to let him go, and then he whirled through the air like a meteor flecked with rosy fire, and landed on the fresh green grass a dozen feet behind me. Down on my knees I dropped before him as he tossed and rolled, his beautiful spots and colors glistening in the sun. He was truly a splendid trout, fully a foot long, round and heavy. Carefully seizing him, I easily removed the hook from the bony roof of his capacious mouth, thickly set with sparkling teeth, and then I tenderly killed him, with all his pluck, as old Peter would have said, still in him.

I covered the rest of the fish in my basket with wet plantain leaves, and laid my trout king on this cool green bed. Then I hurried off to the old man, whom I saw coming out of the woods. When I opened my basket and showed him what I had caught Peter looked surprised, and, taking up the trout, examined it.

"Why, this is a big fellow," he said. "At first I thought it was Barney Sloat's boss trout, but it isn't long enough for him. Barney showed me his trout, that gen'rally keeps in a deep pool where a tree has fallen over the stream down there. Barney tells me he often sees him, and he's been tryin' fur two years to ketch him, but he never has, and I say he never will, fur them big trout's got too much sense to fool round any kind of virtuals that's got a string to it. They let a little fish eat all he wants, and then they eat him. How did you ketch this one?"

I gave an account of the manner of the capture, to which Peter listened with interest and approval.

"If you'd a stood off and made a cast at that feller, you'd either have caught him at the first flip, which isn't likely, as he didn't seem to want no feather flies, or else you'd a skeered him away. That's all well enough in the tum-

blin' water, where you gen'rally go fur trout, but the man that's got the true feelin' fur fish will try to suit his idees to theirs, and if he keeps on doin' that he's like to learn a thing or two that may do him good. That's a fine fish, and you ketched him well. I've got a lot of 'em, but nothin' of that heft."

After luncheon we fished for an hour or two, with no result worth recording, and then we started for home. A couple of partridges ran across the road some distance ahead of us, and these gave Peter an idea.

"Do you know," said he, "if things go on as they're goin' now, that there'll come a time when it won't be considered high-toned sport to shoot a bird slam-bang dead? The game gunners will pop 'em with little harpoons with long threads tied to 'em, and the feller that can tire out his bird and haul him in with the longest and thinnest piece of spool thread will be the crackest sportsman."

At this point I remarked to my companion that perhaps he was a little hard on the game fishermen.

"Well, said old Peter, with a smile on his corrugated visage, "I reckon I'd have to do a lot of talkin' before I'd get even with 'em for the way they give me the butt for my style of fishin'. What I say behind their backs I say to their faces. I seed one of them fellers once with a fish on his hook that he was runnin' up and down the stream like a chased chicken. 'Why don't you pull him in?' says I. 'And break my rod an' him?' says he. 'Why don't you have a stronger line and pole?' says I. 'There wouldn't be no science in that,' says he. 'If it's your science you want to show off,' says I, 'you ought to fish for mud eels; there's more game in 'em than there is in any other fish round here, and, as they're mighty lively out of water, you might play one of 'em fur half an hour after you got him on shore, and it would take all your science to keep him from reelin' up his end of the line faster than you could yours.'"

When we reached the farm the old man went into the barn, and I took the fish into the house. I found the two pretty daughters in the large room, where the eating and some of the cooking was done. I opened my basket and with

great pride showed them the big trout I had caught. They evidently thought it was a large fish, but they looked at each other and smiled in a way that I did not understand. I had expected from them at least as much admiration for my prize and my skill as their father had shown.

"You don't seem to think much of this fine trout that I took such trouble to catch," I remarked.

"You mean," said the elder girl with a laugh, "that you bought of Barney Sloat."

I looked at her in astonishment.

"Barney was along here to-day," she said, "and he told me about your buying your fish of him."

"Bought of him?" I exclaimed indignantly. "A little string of fish at the bottom of the basket I bought of him, but all the others and this big one I caught myself."

"Oh! of course," said the pretty daughter, "bought the little ones and caught all the big ones."

"Barney Sloat ought to have kept his mouth shut," said the younger pretty daughter, looking at me with an expression of pity. "He'd got his money and he hadn't no business to go telling on people. Nobody likes that sort of thing. But this big fish is a real nice one, and you shall have it for your supper."

"Thank you," I said with dignity, and left the room.

I did not intend to have any further words with these young women on this subject, but I cannot deny that I was enraged and mortified. This was the result of a charitable action. I think I was never more proud of anything than of catching that trout, and it was a good deal of a downfall to suddenly find myself regarded as a mere city man fishing with a silver hook. But, after all, what did it matter?

The boy, who did not seem to be accounted a member of the family, came into the house, and, as he passed me, he smiled good-naturedly and said, "Bued 'em?"

I felt like throwing a chair at him, but refrained, out of respect to my host. Before supper the old man came out on to the porch where I was sitting.

"It seems," said he, "that my gals has got

it inter their heads that you bought that big fish of Barney Sloat, and as I can't say I seed you catch it, they're not willin' to give in, specially as I didn't git no such big one. 'Taint wise to buy fish when you're goin' fishin' yourself. It's pretty certain to tell agin you."

"You ought to have given me that advice before," I said somewhat shortly. "You saw me buy the fish."

"You don't suppose," said old Peter, "that I'm goin' to say anything to keep money out of my neighbor's pockets? We don't do that way in these parts. But I've told the gals they're not to speak another word about it, so you needn't give your mind no worry on that score, and now let's go in to supper. If you're as hungry as I am there won't be many of them fish left fur breakfast."

That evening, as we were sitting smoking on the porch, old Peter's mind reverted to the subject of the unfounded charge against me.

"It goes pretty hard," he remarked, "to have to stand up and take a thing you don't like when there's no call fur it. It's bad enough when there is a call fur it. That matter about your fish buyin' reminds me of what happened two suminers ago to my sister, or rather to her two little boys—or, more correct yit, to one of 'em. Them was two cu'rous little boys. They was allus tradin' with each other. Their father deals mostly in horses, and they must have got it from him. At the time I'm tellin' of they'd traded everything they had, and when they hadn't nothin left to swap they traded names. Joe he took Johnny's name, and Johnny he took Joe's. Jist about when they'd done this they both got sick with sumthin or other, the oldest one pretty bad, the other not much. Now, there ain't no doctor inside of twenty miles of where my sister lives. But there's one who sometimes has a call to go through that part of the country, and the people about there is allus very glad when they chance to be sick when he comes along. Now this good luck happened to my sister, for the doctor came by jist at this time. He looks into the state of the boys, and while their mother has gone downstairs he mixes some medicine he has along with him. 'What's your name?' he says to the oldest boy when he'd done it."



Now, as he'd traded names with his brother, fair and square, he wasn't goin' back on the trade, and he said, 'Joe.' 'And my name's Johnny,' up and says the other one. Then the doctor he goes and give the bottle of medicine to their mother, and says he: 'This medicine is fur Joe. You must give him a tablespoonful every two hours. Keep up the treatment and he'll be all right. As fur Johnny, there's nothin' much the matter with him. He don't need no medicine.' And then he went away. Every two hours after that Joe, who wasn't sick worth mentionin', had to swallow a dose of horrid stuff, and pretty soon he took to his bed, and Johnny he jist played round and got well in the nat'ral way. Joe's mother kept up the treatment, gettin' up in the night to feed that stuff to him; but the poor little boy got wuss and wuss, and one mornin' he says to his mother, says he: 'Mother, I guess I'm goin to die, and I'd ruther do that than take any more of that medicine, and I wish you'd call Johnny and we'll trade names back agen, and if he don't want to come and do it, you kin tell him he kin keep the old minkskin I gave him to boot, on account of his name havin' a Wesley in it.' 'Trade names,' says his mother. 'What do you mean by that?' And he told her what he and Johnny had done. 'And did you ever tell anybody about this!' says she. 'Nobody but Dr. Barnes,' says he. 'After that I got sick and forgot it.' When my sister heard that an idea struck into her head like you put a fork into an apple dumplin'. Traded names, and told the doctor! She'd all along thought it strange that the boy that seemed wuss should be turned out and the other one put under treatment; but it wasn't fur her to set up her opinion agen that of a man like Dr. Barnes. Down she went, in about seventeen jumps, to where Eli Fimmins, the hired man, was ploughin' in the corn. 'Take that horse out of that,' she hollers, and you may kill him if you have to, but git Dr. Barnes here before my little boy dies.' When the doctor come he heard the story and looked at the sick youngster, and then says he: 'If he'd kept his minkskin, and not hankered after a Wesley to his name, he'd a had a better time of it. Stop the

treatment and he'll be all right.' Which she did; and he was. Now it seems to me that this is a good deal like your case. You've had to take a lot of medicine that didn't belong to you, and I guess it's made you feel pretty bad; but I've told my gals to stop the treatment, and you'll be all right in the mornin'. Good night. Your candlestick is on the kitchen table."

For two days longer I remained in this neighborhood, wandering alone over the hills, and up the mountain sides, and by the brooks, which tumbled and gurgled through the lonely forest. Each evening I brought home a good supply of trout, but never a great one like the noble fellow for which I angled in the meadow stream.

On the morning of my departure I stood on the porch with old Peter waiting for the arrival of the mail driver, who was to take me to the nearest railroad town.

"I don't want to say nothin'," remarked the old man, "that would keep them fellers with the jinted poles from stoppin' at my house when they comes to these parts a-fishin'. I ain't no objections to their poles; 'tain't that. And I don't mind nuther their standin' off and throwin' their flies as fur as they've a mind to; that's not it. And it ain't even the way they have of worryin' their fish. I wouldn't do it myself, but if they like it that's their business. But what does rile me is the cheeky way in which they stand up and say that there isn't no decent way of fishin' but their way. And that to a man that's ketched more fish, of more different kinds, with more game in 'em, and had more fun at it, with a lot less money and less tomfoolin' than any fishin' feller that ever come here and talked to me like an old cat tryin' to teach a dog to ketch rabbits. No, sir; agen I say that I don't take no money for entertainin' the only man that ever come out here to go a-fishin' in a plain, Christian way. But if you feel tetchy about not payin' nothin', you kin send me one of them poles in three pieces, a good strong one that'll lift Barney Sloat's trout if I ever hook him."

I sent him the rod, and next summer I am going out to see him use it.

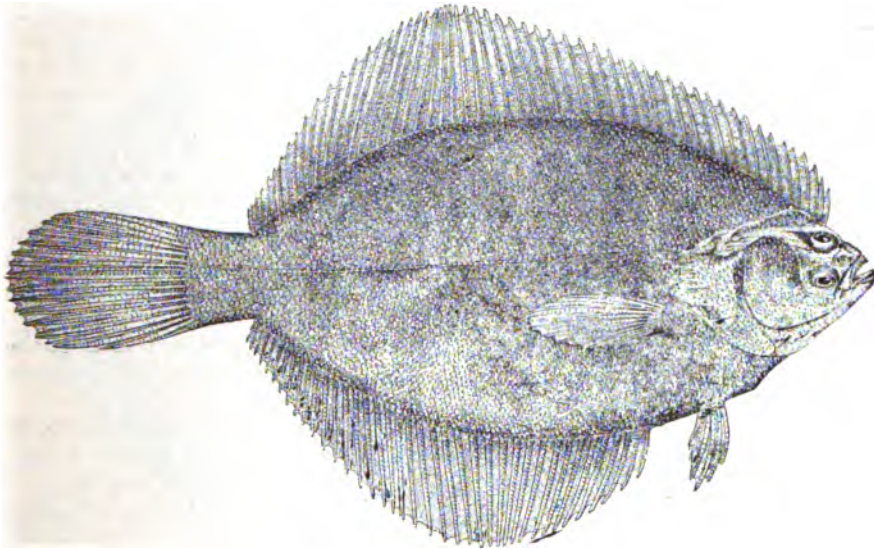
## SOME CURIOUS PHASES OF FISH LIFE.

By WILLIAM C. HARRIS IN THE NEW YORK "SUN."

Of all the creatures of the animal kingdom fishes present the most curious forms. In land animals we find no such striking diversities. In a general way the variation in color and disposition of plumage mark the birds, and, as a rule, the beasts vary one from the other in length of limb, tail and neck, but in the fishes Nature seems to have run riot in fashioning misshapen forms. They possess a general

T. Rymer Jones describes this lovely kaleidoscopic display of fish coloration with a graceful pen :

The splendor of every metal, the blaze of every gem glitter upon their surface ; iridescent colors, breaking and reflecting in bands, in spots, in angles, or in undulating lines always regular or symmetrical, graduating or contrasting with admirable effect and harmony, flash over their sides. For whom have they received such gifts, they who at most can barely perceive each other in the twilight of the deep, and, even if they could



THE FLOUNDER.

type of structure in common with the other creatures of the three great classes of the animal kingdom. They have eyes and ears, a mouth, a backbone and limbs, a heart, breathing apparatus, teeth and brains—in fact, all the organs necessary to sustain life, create in kind and to forage for food, yet their external anatomy is often of a most grotesque character.

The birds of the tropics are not clothed in more brilliant colors than the fishes of the warm seas. Nature has been lavish in their adornment, with a vivacity of coloration alongside of which the most elaborate *parterre* of modern horticulturists seems tame and faded.

see distinctly, what species of pleasure can they derive from such combinations ?

In contrast with this great beauty of coloration, let us examine some of the repulsive forms and strange developments of organic fish life :

All intelligent readers are familiar with the physical outline of the flounder, a flat fish that, when young, swims in an upright position, but, as maturity develops, becomes top-heavy and falls over on its side, and passes its life in that position. This loss of balance we can readily understand, as the law of physics explains it, but just here comes in the work of Nature, which, in a mysterious way, takes the two eyes,

of which there were originally one on each side of the head, and, by a process beyond the ken and reason why of the learned scientists, transposes these two eyes to the upper side of the fish, in which position they face the light and become useful for its life purposes. This is perhaps one of the most striking instances of the economy of Nature, in whose work no factor is



THE SEA HORSE.

displaced or disturbed whereby her munificence may be lessened or her generous designs frustrated.

Another familiar form, well known to all interested in aquaria, is that of the sea horse, *Hippocampus*, from two Greek words signifying "horse" and "a wriggling sea monster" or caterpillar. There are about twenty species known and they are abundant in the tropical

seas, where they twist their prehensile tails, almost as flexible as an elephant's proboscis, around pieces of floating seaweed or grass, and are carried long distances by the ocean currents. The body of the sea horse is enclosed in a kind of armor, the scaly covering being ganoid or bony. They are sustained in an upright position by the pectoral fins, which are on the upper side of the head and look like the flopping ears of a horse; they swim in a vertical position, being almost entirely dependent upon the dorsal fin, which works very rapidly, in action somewhat like that of a screw propeller. The male has pouches on the tail, in which the eggs are carried until hatched. When swimming they appear to be on the alert to seize whatever is met in the water, and once fixed the fish seems to watch attentively all the surrounding objects, and darts on its prey with dexterity and swiftness, their two eyes appearing to move independently of each other, like those of the chameleon. They rarely exceed four inches in length, and live on worms, fish eggs and fragments of organic substances which they find on the bottom of the sea. Their color is a light ashen brown, with slight dashes of blue on different parts of the body, and, in certain lights, beautiful iridescent hues play with a changeful lustre.

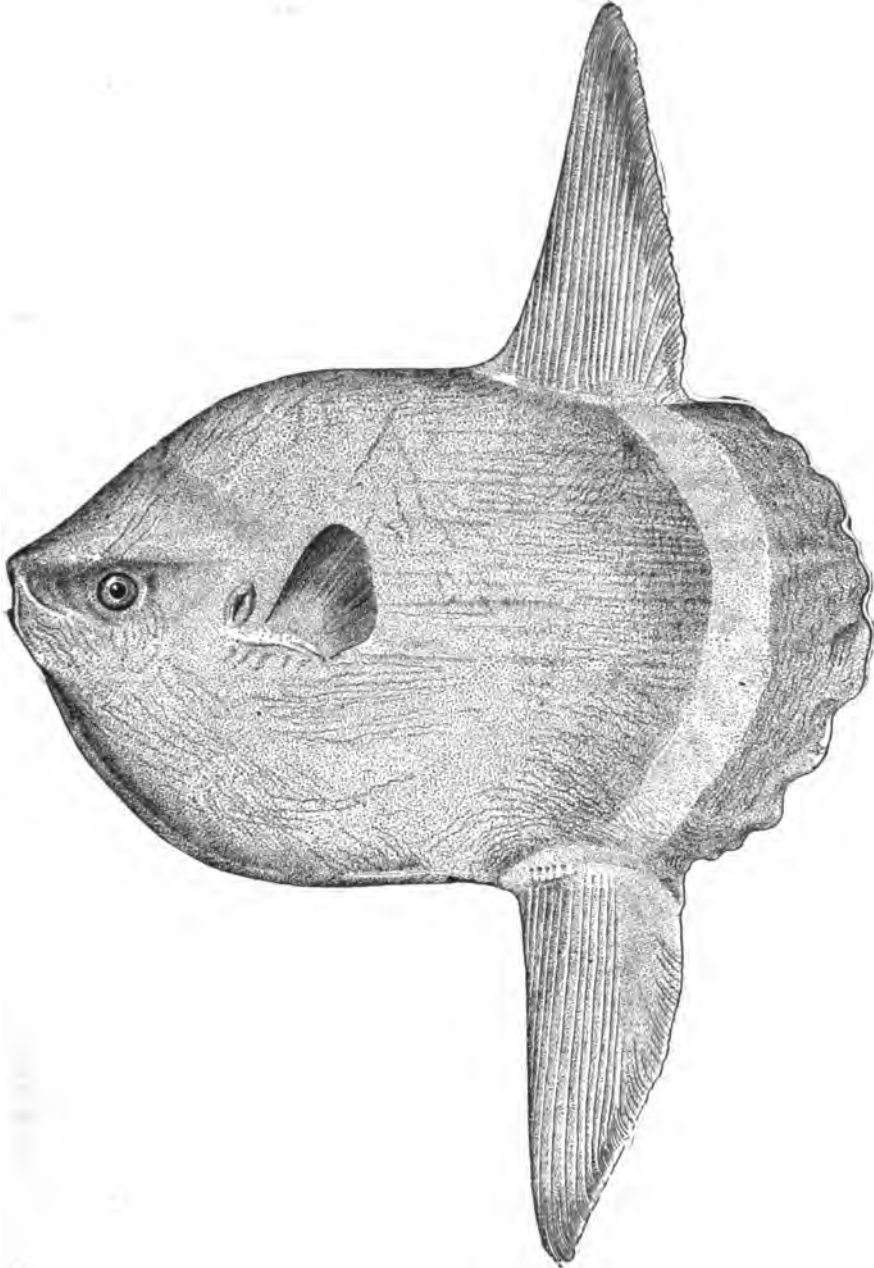
Another of the pipe fishes, to which family the sea horse belongs, presents a remarkably singular appearance. It is a native of Australian waters, and is known to ichthyologists



ONE OF THE PIPE FISHES.

as the *Phyllopteryx eques*, and attains a length of twelve inches, with habits similar to those of the sea horse. We are enabled to give an il-

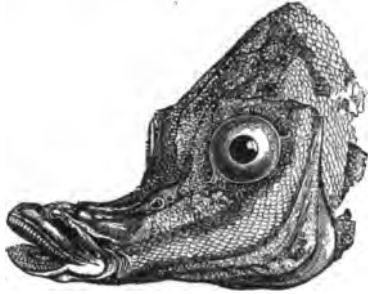
Illustration of the skeleton only, but this will indicate the abnormal development of spines trunk and the snout is very prominent. But little is known of its life history.



THE SALT-WATER SUNFISH.

along the entire body, which is very much compressed. The tail is fully as long as the sunfish, *Mola rotunda*, from the Latin *mola*,

a millstone—presents a curious appearance, to create which Nature seems to have used her butcher's cleaver clumsily in the foreshortening of the body, which has a most grotesque shape, looking as if the fish was severed just back of the dorsal fin, with short waving pieces of skin left to represent a caudal fin. This fish, when



THE BOAR FISH.

young, is broader than long, but as age comes on the body lengthens, the eyes and fins become relatively smaller and shorter, and a hump is developed above the mouth surmounted by a tubercle of bone. This sunfish, which our local anglers will not be apt to confuse with the little "sunny" or "pumpkin seed" of the fresh waters, grows to a length of eight feet and weighs nearly that number of hundred pounds. It is worthless as a food fish, although naturalist Wood asserts that the flesh is white and well flavored, and is in much request among sailors, which is certainly an

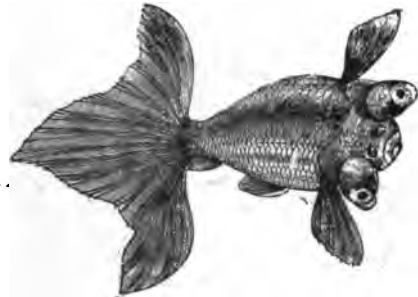


ONE OF THE GOBIES.

error so far as the fish of this coast is affected, and it is of the same species as the European mola. The sunfish in the summer months are very abundant on the New England coast, it being not unusual to see ten or twelve in one day floating lazily along with one of their bright sides near the surface, sunning themselves, from whence their name, sunfish. In this position they are very easily approached and

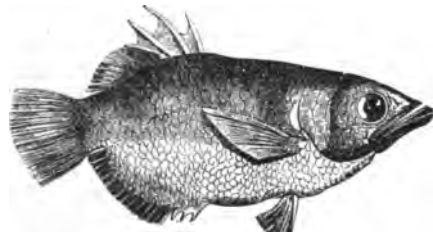
harpooned, but they are of no practical use and are only killed as curiosities, although the oil of the liver is said to be an excellent remedy for sprains and bruises.

The Gobies, a family of fishes distinguished by a disk formed by the ventral fins which enables them to attach their bodies firmly to rocks or other substances, is represented by an odd specimen, a sort of half-breed which has some of the habits of the batracians or amphibians. Its scientific name is *Periophthalmus koelreuteri*, the extent of which seems to have exhausted nomenclature in this particular case, as no other name can be found for it even in its natal waters. It is a true fish and builds



THE TELESCOPE FISH.

nests of seaweeds and grasses, the male watching the eggs until hatched. It is a native of the tropics (Indo Pacific waters) and prefers a muddy bottom, in which it excavates canals to pass the winter in. But its most striking peculiarity is the habit it has of leaving the water at the ebb of the tide and feeding on the small crustacea and other substances exposed by the



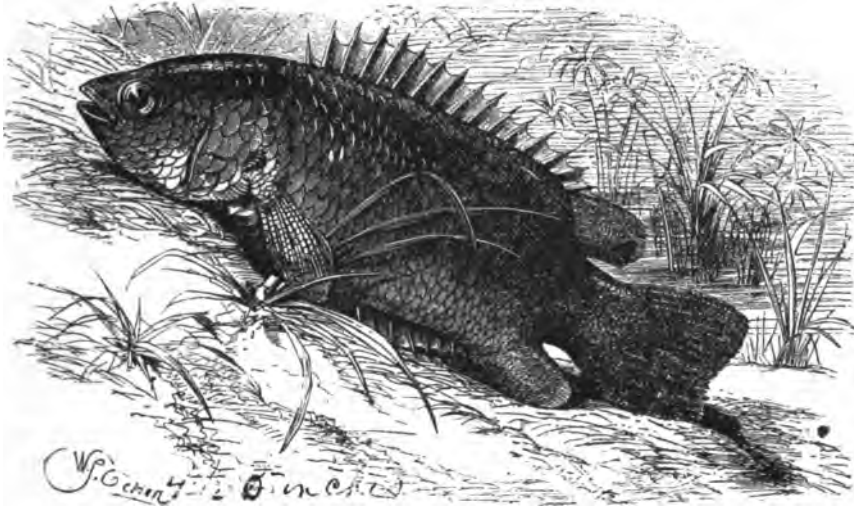
THE ARCHER FISH.

receding tide. Owing to their strong pectoral and ventral fins and tail, they can hop freely and rapidly over the ground. So quick are their movements that it is almost as difficult to

catch them with the hand as it is the ordinary pond frog. The peculiar construction of their eyes, which are very movable and, as will be seen by the illustration, capable of being thrust far out of their sockets, enables them to see in the air as well as in the water. When the eyes are drawn in they are protected by a membranous eyelid.

From this amphibious frog fish the transition is natural when we consider one that can climb trees. It is called *Anabas scandens* in the books, and "climbing perch" by the natives of the Indian Region. It seldom exceeds six inches in length, and has a resemblance in

its body. The testimony of Daldorf has been corroborated by other travelers. This perch leaves pools when they are in danger of being dried up, and travels in search of water, and when doing so they have been met with in the glare of noon toiling along on a dusty road. But their migrations are generally performed at night or in early morning while the grass is still wet with dew. It is said that the boatmen of the Ganges keep them in a vessel without water for five or six days, killing and cooking them as wanted from day to day, the fish being always as lively as when first caught. It is said that they are enabled to maintain life ou



THE CLIMBING PERCH.

general form to the ordinary perches, having large scales and strong spines on the gill covers and fins. In 1797 Daldorf, in a paper read before the Linnean Society of London, states that in 1791 he took a climbing perch in the act of ascending a tree which grew near a pond. The fish had reached a height of five feet above the water and was still going higher. In doing this it held on to the bark of the tree by the sharp spines of the front and lower gill covers, bent its tail and stuck in the spines of its anal, the back fin on the belly; it then released its head, and, raising it, took a new hold higher up with the spines of the gill covers, urging its way up by distending or contracting

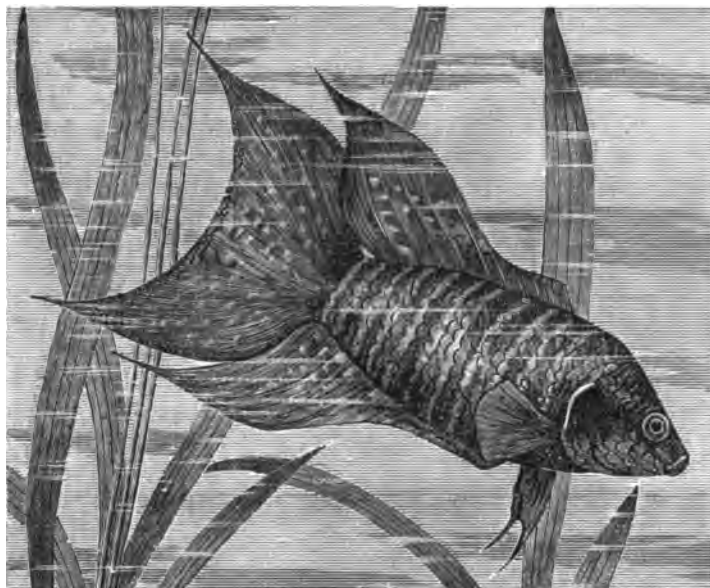
of their native element so long a time because of the retention of a supply of water in the interstices of the bones adjacent to the gills.

Many varieties of the golden carp or goldfish have been produced during their long period of domestication, but none more striking in appearance than the telescope fish, of which we give an illustration. This variety is the most highly valued as a curious addition to aquarium life. It has the usual habits of the goldfish, being a vegetable eater and inoffensive to other fish life.

The paradise fish, another aquarium pet, shows an abnormal development of fin growth, the area of the fins being greater than that of



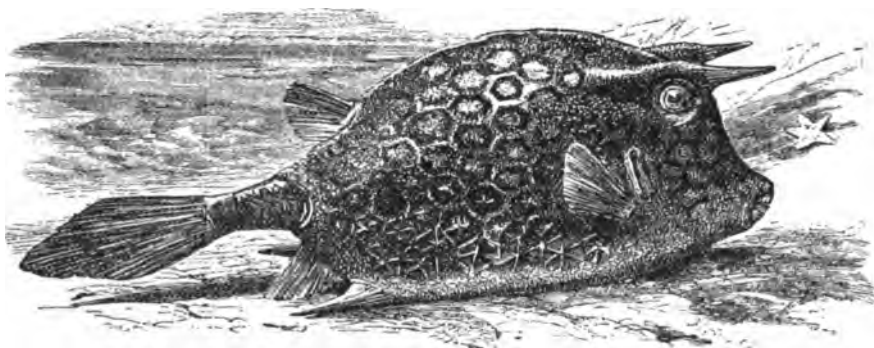
the body. It is of the carp family, and of most brilliant coloration. The head is ashy gray, mottled with irregular dark spots ; the gills are sometimes it is white, at others gray or black. But when the large fins are distended, as they are in combat at the spawning season, a won-



THE PARADISE FISH.

azure blue, bordered with brilliant crimson ; the eyes are yellow and red, with a black pupil ; the sides of the body and the crescent-shaped caudal fin are deep crimson, the former

derful beauty of coloration is exhibited. At such times the tail fin appears to be covered with little pearls and the under surface of the fish becomes jet black ; the dorsal or back fin



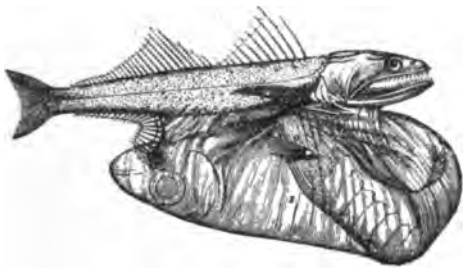
THE COW FISH.

having ten or twelve vertical blue stripes and latter is bordered with blue. The under surface of the body is continually changing color—

changes constantly from brilliant green to indigo blue, now and then showing white spots, and, while the body is in tremulous motion,

radiating colors of every conceivable hue. This fish has similar habits to those of the goldfish.

A curious elongation of the snout occurs in the boar-fish or bastard dorey, one of the marine perches native to Australian waters, and much esteemed as a food fish. Its flesh improves in flavor after being out of the water twenty-four hours, hence it is much sought for by inland people. The use of the snout in fishes appears to be merely mechanical—for rooting pur-



A 1,500-FATHOM DEEP SEA FISH.

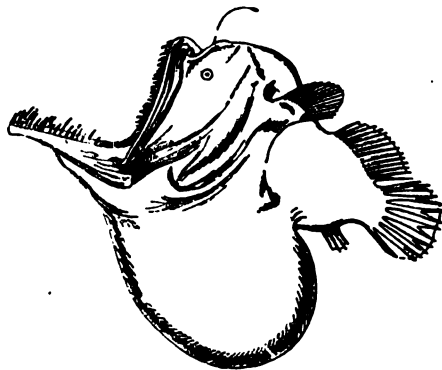
poses—and its prolongation would appear to be simply a freak of Nature, other fishes of the same family and habits having only the usual length of snout.

A striking exception to the rule laid down as to the use of the snout in the boar-fish occurs in the archer-fish (*Toxotes jaculator*), one of the chelmos, a native of the East Indies. This fish is about six to seven inches in length, and, as will be seen in the illustration, has a slightly prolonged snout, from which it projects drops of water with sure aim at insects, causing them to fall into the water, where they are instantly seized as prey. This habit it continues in captivity, and it is said to be highly prized as a household pet by the Malays, who keep it in captivity in a bowl of water and amuse themselves at the exhibition of the peculiar habit of the fish, which they call "Ikan sumpit." This faculty of the archer-fish is another illustration of the close connection between reason and instinct in animals. To those who are particularly interested in species and their habits it is well to point out that this trait of squirting drops of water on insects is confined to the species named, and that the chætodons do not possess it, as stated in the notes and shown in the illustrations of this fish which have lately

been published in the journals of the country.

One of our Southern coast fishes presents another curious form. It is the cow-fish, sometimes called the "cuckold" and the "horned trunk-fish." There can be found a resemblance, if one scrutinizes the illustration closely, to a cow in this species. The expression of a curious bovine as it lifts its head and stares at any one crossing its pasture field may be noted. We have five species of this fish (*Astracion cornutus*) in American waters, four on the Atlantic and one on the Pacific. All of them are prized as curios and sold in the curiosity shops. In the West Indies and in Florida the trunk-fishes are sometimes cooked in their own shells, and are considered by epicures a delicacy, but if kept too long before cooking they are apt to be poisonous. Their coloration is rather a pretty blending of brown, yellow, blue or green, with blotches here and there of a bluish tint.

We cannot close this brief and by no means exhaustive sketch without alluding to the deep-sea fishes, of which so little is known. There are two of these which present anomalies in



ANOTHER DEEP SEA FISH.

stomach construction, which organ has greater relative elastic properties than even that of the boa-constrictor or deer-swallowing snake. The fish drawing shows a deep sea fish, of undesignated species, after swallowing a large fish evidently greater in bulk than itself. This species seldom grows to a greater length than twelve inches, and has been taken in the deep seas at Madeira and off the coast of Massachusetts. The one shown in the drawing was



caught at the depth of fifteen hundred fathoms. The second illustration is that of one of the pediculate fishes, such as the fishing frogs, toad, bat and others of bizarre forms. The specimen shown was about four inches long, and contained in its stomach, rolled up spirally into a ball, a fish seven and a half inches in

length and about one inch in depth. It may be well to note, in explanation of the enormous swallowing capacity of these fishes, that deglutition is not effected by the action of the muscles of the throat, but by a sort of independent and alternate motion of the jaws, by which they draw themselves over their victim.



## LAKE KONOMOC, CONN.

By ROBIN RUFF.

New London, Conn., has for a number of years been quite famous as a summer resort, and among its host of visitors it is quite likely there are many fresh water anglers. It is also most probable that a few only of this latter class know that within easy driving distance there is a lake that will yield very fair sport in the way of black bass and pickerel fishing.

During the younger days of our daddies this body of water was known as Lake Pond, and so it is still named on an atlas of the present day, but if you were to ask a New Londoner of the younger generation for information regarding it, you would hear him refer to it as Lake Konomoc, for so it is now called by one and all of the residents. Nestling quietly near the summit of the highest lands, and five miles from the city, about westerly by the compass, the pure waters of this pretty lake serve two most excellent purposes, the more important one being that it is the reservoir supplying the city with water, the other its attractions for the angler.

I have heard my grandfather, who passed away many years ago, tell how, when a boy, he often went to Lake Pond in the winter with one or more companions, and had splendid fishing. Pickerel in those days were considered to be about the best of the fresh water fishes, and I well remember the smack of satisfaction that came from the aged man's lips when he told me of the many delicious morsels that he had pulled through the ice. First, he said, they would build a big fire on the shore, for it is awfully cold up there in January; then they would cut holes through the ice, any number from ten to thirty, according to the size of the fishing party. The fish poles were short and cut from trees, leaving a branch on either side near the tip. This was done so that the fish could not pull them through the hole in the ice. Minnows that had been caught in the

fall and kept in the water trough or a spring hole, were used for bait.

When all of the poles were set, then each youngster strapped on his skates and they were ready for business. Of course the fire received frequent visits if the fish were not biting, but if they were on the feed, then the boys had a busy time; down would go the tips and up into the air would fly half a dozen poles at the same time; indeed, so lively was the work at times that with skating from one hole to another, pulling up fish and rebaiting hooks, they had no use at all for the fire. The fish generally ran from one pound to two or three pounds each, and occasionally they would get a big one, a four or five-pounder. "Ah! it was great fun for us country boys," my grandfather would say, and then a mournful expression would gradually spread over his face as he thought of the happy youthful days that had passed forever away. Perch also were in the lake at that time, but in that part of the country black bass were unknown.

It was during the summer of 1872 that I first fished this lake; it had then been stocked with bass for some six or seven years, I think; at any rate, the sport was very good, and I caught bass ranging from three-quarters to two and a half pounds each. There was one cove where trolling for pickerel was first rate, and about sunset was the best hour, and with the belly of a perch fastened to the spoon, a fine mess was sure to be caught. When trolling around either of the points of land in the lake, with live minnow, fly or spoon bait, I have often taken large perch, but the bass fishing was the best, and they are caught by still fishing.

Since 1872 the fishing has improved considerably, so when you visit New London drive out there and try it. You certainly should not neglect an opportunity to cast a hook in Lake Konomoc.

# THE AQUARIUM.

CONDUCTED BY HUGO MULERTT.

[The Editor of this Department will answer all queries relative to the conduct of *Aquaria*.]

## THE WATER CABINET.

The aquarium has not only spread abroad a love for natural history; it has also increased the facilities for the study of Nature by removing the difficulties which have hitherto attended the preservation, for any length of time, of living specimens of aquatic life. The tank had scarcely taken its place among the resources for pleasurable recreation and scientific study when the field of culture extended itself, and every variety of minute life found in the waters came to have its share of attention for the general profit and delight of the studious. The ordinary tank was found insufficient for the wants of the aquarist, and, wherever a large vessel was to be seen stocked with fresh-water fishes or marine objects, a collection of small jars, phials or show glasses was pretty sure to be found also.

In an aquarium we may group together many dissimilar objects, but it must be evident to the most superficial observer that, when immersed in a large body of water with other creatures, many objects are ill placed for examination, especially if we use the microscope. Hence, where the study is pursued with any degree of ardor, some special arrangements are necessary to enable us to keep in a healthy state, and in a way that admits a close scrutiny at any moment, such of the smaller aquatic objects as most commend themselves for beauty or scientific interest.

Many beginners, unable to resist the temptation of a jar of beetles or a collection of larva, and having no other means of keeping them, have placed them in the tank to mingle with the stock of finny creatures, and have thereby either lost the better part of the collection or have been compelled to break up the stock and begin anew. A few species of water beetles and aquatic larva may be safely preserved in an aquarium, but an aquarium is by no means

the best place for them if we wish to study their habits closely or investigate their mechanism and economy by the aid of lenses; all insects, many mollusks, larva and other small objects should be kept apart, and a collection of such objects is what we mean by a water cabinet.

To the genuine student there is really more for remunerative study in such a collection than can be found in the aquarium, though the tank, whether river or marine, will always prove most attractive as an ornament, and, because it requires less care and study, will be pretty sure to retain the greatest number of admirers. But the aquarium and the cabinet are distinct things; they cannot be combined in the same vessel, and, though a water cabinet is but another form, or rather a series of separate and smaller aquaria, the uses and economies of each are in a great measure distinct. It is possible to cultivate either without the other, though we should generally expect to find them in company, the cabinet being a growth or extension of the aquarium.

CONSTRUCTION OF A CABINET.—Ingenuity, under the control of circumstances, will devise many modes of preserving the smaller specimens of aquatic life, and we shall here describe a plan which, we think, will be found most generally useful, particularly as it may have a very simple form and be produced for a very trifling outlay; or may be elaborated into a noble piece of furniture for the adornment of an elegantly furnished room.

If we describe the measurements of our own cabinet it may serve as a guide to any one who may desire to have one constructed of a similar pattern, though, as a matter of course, the plan admits of endless modifications, to suit the means of the student or the position in which such a cabinet is to be placed.

The table measures nineteen inches from

back to front across the centre drawer, and from back to front across the two side drawers, twelve inches. On this is placed a row of seven-inch cylindrical glasses of clear flint glass, and in the centre, behind the jars, stands a twelve-inch, bell-glass aquarium, to be stocked with choice fishes or superfluous cabinet specimens. The first shelf has a breadth of eight inches to receive a row of six-inch glasses; the second shelf a breadth of five inches, and the jars upon it measure four inches in diameter. The top shelf is only three and a half inches wide, and the glasses measure three inches across the top. The entire frame work has a breadth of about thirty-two inches, and a height, from the floor of the room to the level of the top shelf, of about sixty-six inches.

The breadth and height of the window in which the cabinet is to be placed must have the first consideration with any one who may intend to construct such a piece of furniture; the respective sizes of the vessels must be an after consideration, because, unless the whole be so adapted as that it shall enjoy a full share of uninterrupted daylight, very little progress can be effected, especially if the growth of the more delicate forms of aquatic vegetation be attended.

In the absence of a properly constructed set of shelves, a few plain ones may be fitted up in a window. A single strip of deal, on brackets, would afford room for a dozen jars, and in these, by judicious groupings, specimens of from fifty to a hundred kinds could be kept, whether for observation by the naked eye or the microscope.

Our jars are now stocked with minute aquatic plants, beetles of several species, diving spiders, water worms and mites, larva of beetles and flies, tadpoles in progress of transformation, mollusks of choice kinds and spawn of all kinds, removed from the tanks. Species that do not agree may be introduced to the bell glass, for the sake of teaching us the nature and incidents of the strife maintained in the great world out of doors; the battle may there have its way, and we may study destruction with as much profit as we may the momentary creation, by which the system of Nature is maintained in its completeness. In fact,

the bell glass is a reservoir into which we may dip for almost anything we want to fill up vacancies in the jars, and to which we may consign the superfluities of a day's collecting, having first assorted and set apart such as are wanted for separate observation and study.

#### THE SAGITTARIA OR ARROWHEAD.

In the great economy of Nature the sagittaria have contributed their full share to the support of the human family in all parts of the world. The Chinese and Japanese cultivate them very extensively for food, also the Tartar Kalmucks use them for food. Aquatic birds are fond of them, and resort to favorite spots in spring to feast upon the tubers, when the Indians slay the birds for their own feasts. The tubers are generally as large as hens' eggs, and are greatly relished when raw, but have a bitter, milky juice not agreeable to civilized man; this is destroyed in boiling, however, and the roots are rendered sweet and palatable. They are considered excellent when cooked with meat, either salt or fresh. To collect the roots the Indians wade into the water and loosen them with their feet, when they float up and are gathered. They are of an oblong shape, in color whitish yellow, banded with four black rings (U. S. Agr. Rept., 1870). They serve as food for the Indians of Washington, under the name of Wap-patoo. In shallow ponds and muddy margins of lakes and rivers throughout the Northwest this plant, so variable in foliage and so abundant in distribution, furnishes an important article of native food in the tubers which beset its fibrous roots. These tubers, from the fact of their affording nourishment to the larger aquatic fowls which congregate in such abundance about the northwestern lakes, are called by the Chippewas Wab-es-i-pin-ig or swan potatoes, a name which has been naturally appropriated to several streams in that region. Wabesipinicon, meaning the abode of the swan potato (Owens' Survey of the N. W.).

From the foregoing extracts it will be seen how universally they have been employed to assist in the maintenance of the human family, and probably we know very little yet how ex-

tensively they have been employed in North America.

We have collected them from a great many localities in Ohio, Indiana and Illinois, and find in early spring a solid, brittle, tuberous corm, down deep in the earth, being the germ from which the plant starts in spring. From the corm, at the first approach of warm weather, starts a large, porous root-stock, reaching up to near the surface of the earth, and there



THE SAGITTARIA.

throws out innumerable fibrous roots, which is the true crown from which spring the leaves, flowers and stolens, and is also the plant centre during summer. By the 1st of June the milky juice (starch or saccharine, etc.) has usually been absorbed by the new growth of the plant, and the corm is then a soft and flexible, or spongy mass, reminding one of a sprouted and growing potato, while by the middle of July or 1st of August we would not

find any corm, but found decayed masses which we were reasonably certain were the remains of the former corms.

In addition to tuberous and fibrous roots, the sagittaria present the feature of producing *stolens* or long, creeping roots, just below the surface of the earth. They start from the stem, and usually from just above the fibrous roots, and creep out horizontally from the plant in all directions. We do not now recall a single genus of plants that presents so many different forms of development in each plant as the sagittaria. First, the roots are of three entirely distinct forms, the tuberous, fibrous and stoloniferous. Next, the leaves are sometimes phyllodia (submerged and riband-like), others are an elliptical, erect blade, upon a tall, round or slightly angular stem, and lastly, the leaf developed into its true form—arrow-shaped. Again, let us look at the flower; the lower ones are usually fertile, producing seed to perpetuate its kind, while the upper ones are sterile and barren, or each flower stock producing flowers with the sexes separate and still on the same stock.

The flowers are borne on long, leafless, branched stems, well above the foliage, with pure white petals and a yellow centre (stamens), usually single, but occasionally *S. sagittaeifolia* and *S. variabilis*, var. *latifolia*, have been found growing wild with double flowers. European nurserymen offer these varieties now for sale.

*Sagittaria* and *natans* *S. lanciolata* soon become favorites of American and European aquarists. For growing in an aquarium we find few plants better suited, and for a fountain, small lake or pond, it has few equals. In their natural condition they are found growing in soft, muddy or sandy ground, consequently the conditions for a successful cultivation must be continued, viz.: grown in soft, loamy soil, while, if for pot or tub culture, a layer of coarse sand or small pebbles in the bottom of the tub is always desirable for all kinds of aquatic plants, at the same time a layer of clean, fine sand, spread over the top of the soil, not only looks bright and cheerful, but very materially assists in purifying the water. Of course the tropical species will not withstand our winter,

but must be protected the same as other tropical plants, but they can be allowed to remain in a neglected corner until required again for the lawn or show house. The *S. sinensis* is of very easy culture; it may be grown either way, in water, moss or soil. If treated like the Chinese narcissus—grown in a bowl of water—it makes a very graceful and attractive specimen within a few weeks after it is planted.

#### AQUARIUM TROUBLES.

I herewith send a sketch showing location of my aquarium, and I will also give an account of my management of it as well as I can. My aquarium is about forty inches long, sixteen inches deep and eighteen inches wide. I have in the bottom cleanly washed sand and very small pebbles; in a common earthen flower jar, completely submerged in the water, a calla; no earth in the jar, nothing but fine sand. I also have a little moss, the variety of which you may be able to recognize from sample enclosed. I have recently added some larger pebbles. I have forty or fifty fish, mostly goldfish, averaging about four inches long. Of the native fish I have one-half dozen catfish about one inch long; the balance of my natives are small common brook fish. The water keeps a kind of green color and frequently smells badly. It hardly ever, if at all, looks, or has, a milky color. I guess my feeding is wrong, for I feed them very seldom in winter, only about twice a week, and last winter I have fed them nothing but raw beef scraped fine from a large piece; but I have always been careful to give them just what they would eat and no more. However, I gave them prepared fish food last winter, and I had the same bad luck about keeping the water clear. Almost every day toward evening the fish begin to come to the surface of the water, but in the morning they will be at the bottom, swimming about, feeding, and apparently enjoying themselves very much. The four sides of my aquarium are glass. Should I clean out the aquarium when the water is in its present condition, or should I take out and throw away the water and sand pebbles and replace everything new? And should I let the new water stand some time before returning the fish?

I trust that with your information I may yet succeed with my aquarium. F. P. T.

The capacity of your aquarium is about forty-five gallons. You have, in our judgment, about forty gallons of water in it. For the number of fish that you keep this is an insufficient quantity. Reduce the number to about thirty, introduce two or three more species of aquatic plants, also some Tuffstone rock work, and you will find that your tank looks as good, even better, than before, and the remaining fish will thrive better.

That your fish rise to the surface and are in distress in the evening, while they are at the bottom and apparently comfortable in the morning, seems to prove that they have not the proper amount of oxygen. The burning gas

in your office consumes most of the oxygen contained in the atmosphere, and the water can therefore absorb but little.

The best way will be to empty your tank. Clean the bottom and the (inside) glass sides with common table salt, using your wet hand instead of a sponge or rag. Wash the sand and pebbles in several waters, then replace. Plant the plants, place the rock work, and arrange a couple of handfuls of pretty good-sized pebbles here and there over the sand, taking care, however, to place the individual pebbles not too close to each other. There are to be little spaces—cavities—on the bottom of an aquarium, wherein the excrements of the fish and other loose particles can collect, so that the fish, while swimming near the bottom, cannot mix these again and again with the water. This is the mission pebbles have to fulfil in an aquarium.

Everything replaced carefully, refill your tank, making the water the same temperature the fish are accustomed to, add a teaspoonful of table salt and reintroduce the fish, together with about a dozen of frog tadpoles, which act as scavengers.

Once in a while the sediment that collects between the pebbles should be removed by aid of a siphon. Let your aquarium have no sunlight.

The plant of which you sent a sprig in your letter is the common wax or hornwort (*Ceratophyllum demersum*, from keras—the horn or wax, and phyllum, the leaf, owing to the waxy or horny texture of the plant). It is a good oxygenator, although one of our commonest native aquatic plants.

#### FEEDING THE FISH.

Putting a whole or half sheet of prepared fish food in an aquarium, with the intention of giving the fish a week's ration at once, can be compared to placing enough fresh meat on a dinner table to last for the week. It will not only lose its value as food, but will also poison the water. Offer your fish food every day, and, if they don't seem to care for any, don't give them any. At any rate, let no food remain in the aquarium; remove it at once if refused by the fish.

## SNAILS FOR AQUARIUMS.

The ramshorn snail (*Planorbis trivolvis*), next to tadpoles, we consider the best agent to remove the *too much* green algæ in an aquarium. All the *Planorbis* are fonder of the confervæ than of the larger plants, and are therefore excellent inhabitants for the fresh-water tank, whilst the *Lymnæ*, most of them, are too dainty to eat up the troublesome, minute plants, but will be sure to make away with your more tender plants, such as *anacharis*, etc.

## AQUARIA GLASSES TURNING GREEN.

Do you know of any preventive against the glasses turning green with a slimy substance if the water is not changed for some weeks? I have a good deal of trouble, and it is about the most disagreeable thing in keeping an aquarium arranged nicely.

F. L. L.

Your aquarium gets evidently too much light. Move it about twelve inches back from the window, toward the room, and let no sun shine against the glass. Once or twice a week wipe the inside of the glass with a small rough sponge tied to a stick.



## MASCALONGE AND BLACK BASS IN CHAUTAUQUA LAKE.

BY FRANK N. CHENEY.

It was on the 29th day of May when I finished distributing the mascalonge fry which I had hatched earlier in the season, and I then prepared for the fishing season, which did not open up as favorable as that of last year, although quite a number of bass and mascalonge were taken. The fishing, as a rule, was poor all through June. Still I have no fault to find myself, as I did very well, taking as high as thirty-seven small-mouthed bass in one day, but of course this was only occasional luck. The water was clear, and the bass did not come up in the shallow places to feed where anglers caught them last year, and the majority of fishermen here think, if they cannot get them in such spots, fishing for them at other points is useless. Nearly all the bass I caught were in from eight to fifteen feet of water.

Along toward the latter part of June the mascalonge commenced to take spoon bait, and for a few days quite a number were taken. They were biting, in deep water, also very close to the surface, and, for the benefit of brother anglers, I will give an idea of how we troll for them:

Nearly all the fishermen run four lines, using three or four different colors and varieties of spoons, and not running them more than two or three feet below the surface. This they do when the water is twenty feet deep and where it is forty.

I think the reason the fish go into this deep water is because it is cooler, as at this time of the year it warms up along the shore. They almost always bite best just before and soon after sundown.

I will give you a short experience which I had with a mascalonge on the 1st day of July, which for fool's luck is high hook. I started out on the morning mentioned, throwing out four lines, and made for the middle of the lake, which was like a mirror. It was dark and cloudy, and a gentle mist was falling, and the 'lunge were rolling up all around my boat. I had two lines out on side rods, and rowed for nearly an hour, and had about made up my

mind they would not bite, when all of a sudden one of my rods went nearly double and turned my boat around sideways. I got the rod loose and commenced to haul in. The fish came along near the surface, and, as he neared the boat, went right along past it, and I had to let him go, giving him the line again. This I did three or four times before I could get him near the boat, and, when I did get him there, I took off the oar and struck him with the edge of the blade as hard as I could. He made a dive for the bottom and the line caught in the rowlock and broke, and then away went the fish with a new Daniels spoon that I only purchased three days before, and this was the first fish that had struck it. I supposed he had gone for good, and I started on, thinking how foolish I was for striking him in the way I did, but, looking back about ten rods, I saw him rise to the surface and lie there. I took in my lines and backed up toward him, and, when I was close enough, I took off my oar and struck him across the head with the hand end. He gave a lunge for the bottom and then slowly rose to the surface, when I placed my hands in his gills and pulled him in. The spoon with about ten feet of line was hanging from his upper jaw, so you see I saved the fish and tackle by mere luck. He weighed thirty-three pounds. I fished a part of the next two days, catching four 'lunge and ten bass, the lot weighing forty-four pounds. I did not drop a hook in the water from July 3 till September 4.

During July and August I was captain of one of the steamboats of the Red Stack Line, and it was astonishing the great crowds we carried. There are five boats in this line, and they were taxed to their utmost capacity for two months. A new steel boat, 210 feet long and 50 feet beam, will be built the coming winter.

I started fishing again as soon as the boat I run was laid up for the season. I commenced September 4 and have had fair success, taking in all about thirty 'lunge and ten bass. I caught with rod and live bait one of the former, last week, that weighed twenty-eight pounds,



and it took me nearly half an hour to land him. I never had a fish fight so hard and long before. He would take seventy-five feet of line off the reel and go into the air with his body in a half circle, but he gave up at last and I brought him alongside the boat, and finished him with a thump on the head. A Mr. Geo. Scofield caught one trolling with spoon bait, last week, that was the largest ever caught trolling in this lake; it weighed forty-six and one-half pounds. He had a hard fight getting him. The fish was sent to J. Sloat Fassett, Republican candidate for Governor.

I do not get more than half the 'lunge that bite, as they do not seem to swallow the bait readily; no doubt this is because they are so well fed naturally.

Mr. Fred Mather, of Cold Spring Harbor, has been writing articles to a Boston paper, giving me Hail Columbia and Dixie Land for propagating mascalonge. He is a G. A. R. man, and says he would have the pike family of fish exterminated, and in their place sturgeon, whitefish and shad. We cannot raise whitefish and shad in Chautauqua Lake, and sturgeon we don't want. He prints a great harangue that sounds as if it ought to amount to something, but flattens out at the end like a country Fourth of July speech. He says it is quantity and bulk in fish that is needed, and not game qualities. Now in the mascalonge

we get game quantity and quality, and why Mather should come out openly and boldly and condemn the pike and trout families and wish them exterminated, is a mystery to sane people, and no doubt, where one man would agree with him, ninety-nine would differ. Where whitefish and shad will thrive, increase them; where sturgeon and catfish will multiply, plant them, and you will benefit the common people. We have here a lake seventeen miles long by one and a half broad, and it is conceded to be one of the finest and most picturesque in the State. Whitefish and trout will not thrive in it; shad, Mather knows, could not, and sturgeon are no good. In this lake are great quantities of food, and mascalonge, bass and bullheads *do thrive*, and, if artificial propagation will increase them, I cannot see why any one should object. What we want is to increase them, so that hotels and private families can have these fish on their tables more plentifully and at less cost. It is not merely to satisfy the selfishness of the angler and sportsman, as Mather terms it, but to supply food. It would not pay any hotel around the lake to cater to the angling fraternity, and yet they subscribed to the propagating fund simply for the sake of having their tables supplied with fish during the lake season.

## NOTES AND QUERIES.

[Under this Department Heading queries relative to Angling, Ichthyology and Fish Culture will be answered.]

Many lovers of the sport of chumming for bluefish are deterred from indulging in it by the difficulty of getting a supply of menhaden and the tediousness of preparing the bait for luring these fish. To such we suggest a more economical plan, one easily followed, which we have found efficacious not only for attracting the fighting blues, but for weakfish and other species. Buy a gallon demijohn and fill it with *crude* menhaden oil, which can be bought at any of the oil stores. When on the fishing ground, which is presumably one of the shallow (five to fifteen feet) bars or swims where these fish resort, pour now and then a pint of the oil over the bow, until a "slick" is formed on the tideway, which is best when gentle or slow as it is at the Great Kills and other points. We warrant the efficacy of this method. It has yielded us excellent results and we have killed many a leaping blue when no indications of their presence existed before our "slick" was in working order. Another advantage, and to many a very important one, arises from the soothing effect of the oil upon the troubled waters. It will chasten them so that those with weak stomachs can fish without qualm or distress.

We have met many anglers who consider ichthyology a complex and difficult branch of science. It is true a knowledge of the scientific nomenclature and analogical relations that fishes bear to each other, with the numerous generic and specific differentials, can only be acquired by hard student work, but the fundamental knowledge necessary to enable one to classify and determine species, in a general way, is very easily acquired. It is, of course, necessary that the rudimentary lessons be supplemented by personal observations when on the stream, and careful study of

publications treating on biological conditions, latest discoveries and frequent changes in nomenclature, and the latter is much more apt to confuse the angling student than any other branch of ichthyic study. He will doubtless think, pardonably so, that the nomenclature of fishes, when once applied, should be held inviolate, fitful and frequent changes in this respect being about as permissible as attempted innovation upon the fixed laws of mechanics; to him scientists who have assigned to the large-mouthed black bass seven generic appellations, to wit: *Labrus*, *Grystes*, *Dioplites*, *Lepomis*, *Cichla*, *Huro* and *Micropterus*, are simply undetermined as to their facts and uncertain in their conclusions. But he is in error. This apparent confusion in the nomenclature of fishes is the result of efforts on the part of our ichthyologists to reach the simplicity of facts upon which to build a compact structure of terminology. In this connection it must also be borne in mind that it is only in the last few decades that ichthyological science has made rapid progress in America, and it is yet in a nascent condition. New facts and newly-discovered phases of old ones; broader observation through National, State and individual efforts, are constantly throwing light on the biological conditions under which fishes exist in our waters.

With this number of THE AMERICAN ANGLER commences the monthly issues. The change from the weekly to the latter form was indicated and explained in an editorial note of September 12, which we reprint:

TO THE ANGLERS OF AMERICA.

This issue closes the twentieth volume and tenth year of THE AMERICAN ANGLER. This long journalistic career has not been rewarded with the measure of success that justifies the devotion of a lifetime to the publication. In fact, the income has been meagre and the labor great. An en-

thrustastic love of the art of angling and its literature, and a nature, perhaps an unfortunate one, buoyant with hopeful anticipations of "better times ahead," has sustained me in these years of unrequited industry. Thousands of dollars have been sunk and millions of copies of *THE ANGLER* have been distributed during the last decade in building up a constituency of readers who are now the pride and comfort of the editor. The number of these in the aggregate is not enormous, for it is conceded by the experienced that not one man in a hundred who goes a-fishing cares a fig for the literature of the art. But they are in number great enough to warrant the successful publication of the journal, were it not that the sum of advertising, from which the profits of a class journal must arise, is limited even during the summer months, and almost nil during the winter ones.

In reviewing the past ten years of my experience as editor and publisher of *THE AMERICAN ANGLER*, and feeling the force of the above-named conditions, it became a question with me either to stop the paper entirely or meet the conditions in such a way as to preserve to the craft a representative journal that would no longer entail financial loss upon the management. We decided upon the latter course, and will publish *THE ANGLER* as a handsome illustrated monthly magazine of sixty-four pages (8x10 inches), the first number appearing on October 1 next.

It is proposed, should the advertising patronage warrant such a course, to publish each week during the summer months a large eight-page supplement, giving the current events of the day in angling circles, the usual monthly form being continued through the year. I desire to make the monthly issue a *va de me um* for the angler, giving practical papers on the art and essays on cognate subjects, profusely illustrated whenever the text requires it.

I place the condition of *THE ANGLER* freely before our readers. There is nothing to hide. I have worked ten years and spent thousands of dollars without reward, and if there is a scornor among the news-stand buyers of *THE ANGLER* who is inclined to mutter "the more fool ye," we commend him for his good judgment but place him outside of the pale of gentle anglers.

We hope, brother angler, to have your sympathy and continued patronage.

William C. Harris.

We have nothing to add to the above. You have the monthly issue before you. If you like it, help us. It will improve as it gets older.

A most charmingly frank and manly announcement is that of Editor William C. Harris in this week's issue of *THE AMERICAN ANGLER*. Mr. Harris has edited the paper for ten years, and no one could have edited it better. But he finds it does not pay, and he says so bluntly. As he puts it, "the income has been meagre and the labor great." He goes on to remark: "An enthusiastic love of the art of angling and its literature, and a nature, perhaps an unfortunate one, buoyant with hopeful anticipations of 'better times ahead,' have sustained me in these years of unrequited industry."

So he has concluded to make the paper a monthly magazine of sixty-four pages, handsomely illustrated. During the summer months an eight page angling supplement will be issued. Here is another sentence in Editor Harris' announcement that is worth reproducing:

"I place the condition of *THE ANGLER* freely before our

readers. There is nothing to hide. I have worked ten years and spent thousands of dollars without reward, and if there is a scornor among the news-stand buyers of *THE ANGLER* who is inclined to mutter, "The more fool ye," we commend him for his good judgment but place him outside the pale of gentle anglers."

Spoken in man fashion. The weekly edition of *THE ANGLER* will be greatly missed.—*New York Recorder*.

I am sorry to note that your efforts in giving to the craft such an excellent advocate have not met with the success they merited, but let us hope that under its new conditions *THE ANGLER* will awaken to a proper appreciation of their duty those who have not contributed their share of support in the past.

T. C. Scott.

WEST POINT, N. Y.

I very much regret that you have found a lack of liberality in the dealers of fishing tackle, boats, etc., to properly sustain you in your advertising columns. I am certain that the anglers of America feel differently in this matter, and that this appeal of yours will reach every one of them. I certainly want to do all I can to not only keep *THE ANGLER* alive, but to keep it what it is—the best representative journal in America. Will you please send *THE ANGLER* to the following gentlemen and upon your bill, which send at once, please say that it is ordered by me for them. Call upon me whenever I can be of any service to you or yours.

CHICAGO, ILL., Sept. 21.

Jas. R. B. Van Cleave.

As a monthly there is no doubt that the high standard that has characterized *THE AMERICAN ANGLER* will be kept up; and that it will be ready to fight for any measures that will benefit the anglers and preserve the fish interests of the country.—*New York Times*.

We could fill the October issue with similar kind words, but content ourselves with these indications of good will and "God speed" in our new departure.

The inquiry of "H. F. D." failed to reach us on time for answer in our last weekly edition of September 12, and did not come under the eye of the editor until a late date. He asks about localities for chumming for bluefish and fishing for sheepshead. For answer to first query see editorial note under this department heading. Sheepshead are scarce in New York waters, and we know no nearer or better place than Barnegat, and even there they are not numerous. We advise him to write to Host Eno, of Forked River, N. J., who can doubtless give him full information about the sheepshead in Barnegat waters. Several years ago we saw a fine batch of ten

or twelve landed at the Inlet, which were taken about two miles distant from the hotel.

We would suggest to our correspondent "W. A. T.," of Dover Plains, N. Y., that he take his vacation at Hell Gate during the early days of October, if he wishes to get striped bass fishing or if he can extend his trip as far as the Delaware Bay to try Fortesque, the locality referred to by "Old Izaak" in this number of *THE AMERICAN ANGLER*.

Since our last issue Mr. J. V. O'Donohue has entered a striped bass of thirty-seven pounds, caught at Stamford, Conn. All entries for our premiums must be made before November 1, as the contest closes on that date. The following is a complete list of fish entered to date:

A blackfish, caught by N. I. Phillips, weight  $7\frac{1}{2}$  lbs.; a sea bass, caught by L. B. Niver, weight  $4\frac{1}{2}$  lbs.; a striped bass, caught by Wm. Robotham, weight  $24\frac{1}{2}$  lbs.; a weakfish, caught by John Brown, weight  $7\frac{1}{2}$  lbs.; a sea bass, caught by James Smith, weight 5 lbs.; a striped bass, caught by J. V. O'Donohue, weight 37 lbs.

A. C. S. will find fair fishing for black bass, perch and pickerel, in Rockland and Mahopac lakes during October, the last named fish being most numerous. On the New York and Northern Railroad he can get some fishing at or near the following stations: Amawalk, Crofts, Croton Lake, Fordham, Merritt's Corner, Tarrytown Heights and Yorktown.

Mr. James C. Pond has been appointed General Passenger Agent of the Wisconsin Central lines in place of Mr. Louis Eckstein, who resigns to engage in private business. Mr. Pond is peculiarly fitted for this position, and thousands of anglers who are the knowing ones as to the fruitful fishing waters of this road, will be glad to find him at the helm. A genial General Passenger Agent, which Mr. Pond certainly is, is a boon to the tourist angler.

Monroe A. Green, superintendent of the State hatchery at Mumford, N. Y., will send, about October 12, a party of four experienced fish culturists to Lakes Huron and Michigan to gather lake trout eggs, of which millions are distributed from the Caledonia Hatchery every year.

As we go to press the striped bass have commenced running at Hell Gate. Owing to the unusually warm weather in the latter days of September, they came late, but when this occurs they usually bite eagerly.

#### TWO PRACTICAL QUERIES.

1. How long will fish live in a quart jar used for canning fruit, when the top is screwed on tight? Jar is made of glass.
2. Is there any way of keeping water in a tank  $24 \times 18 \times 12$  inches deep, running steadily, without introducing more water?

*William F. Hyde.*

1. How long fish can live in a given quantity of water depends: 1. On the genus to which the fish belongs; 2. on the size and age of the individual; 3. on the conditions under which the fish has been used to live; 4. on the temperature and location the vessel containing the water is placed in. For instance, a young shad, a young grayling or a young spoonfish will drown in a few minutes in a quart of water, even if the jar is left uncovered; a young trout, channel catfish or a darter would live for several hours, although very tender in this respect if they have lived, previous to their being thus "bottled," in a self-sustaining aquarium for about a month; while a young gar, a little dogfish or a paradise fish, if the bottle would be only three-fourths full of water, would live until killed by want of food, which may be in some cases six weeks or longer, provided, however, that no sun or artificial heat or frost affects the water.

2. There is a little aquarium fountain sold in Germany which answers this purpose. It is set in the centre of the aquarium, draws its supply from the aquarium and returns it. This fountain can be made, by changing the jet, to flow like a little stream, which in turn drives the wheel of a miniature water mill. The pump of the fountain is run by electricity.


## WHAT IS THE LATERAL LINE?

The lateral line, which is found more or less developed in all fish, has long been an object which has attracted the attention of ichthyologists, and evoked from many others less versed in fish life various theories as to the real utility of this curious succession of pores, which follow on either side of fish generally in the centre of the body from the operculum to the middle of the caudal fin. The most probable supposition, however, seems to be that these pores serve the purpose of passage, through which a mucous fluid is ejected, which, in diffusing itself over the body of fish, facilitates their progression and circulation through the water. Can THE ANGLER throw any farther light upon the subject?

G. B.

[Our correspondent is correct as to the function of the lateral line—the excretion of mucus, although this is doubtless discharged from the entire surface of the fish. As the lateral line is abundantly supplied with nerves, it has been thought by some ichthyologists that it was the seat of an unknown sense peculiar to fishes.]

## THE PLAY OF SPOONS.

Given two spoons, of equal size and weight, one kidney shape, the other like this . Now, when they are in the water on equal lengths of line, all conditions (save that of the spoon itself) being equal, and being trolled from same boat, which, if either, will run the lowest down from the surface of the water, and why?

H. S. B.

ALBANY, N. Y.

If both eyelets are fastened to the spoon at the same angle, we think there will be no relative difference in depth of play. If the eyelet of one is at a right angle with the body of the spoon, the latter will swing within a smaller radius than the other, and consequently play nearer the surface, being less

liable to sink under its dead weight. At least such has been our experience.

## WORK OF NEW YORK FISH PROTECTORS.

At the request of Mr. Doyle, clerk of the New York State Fisheries Commission, I herewith give you a brief statement of the work done by this department in the months of May, June and July, 1891.

There were fifty-eight actions for penalty commenced in Supreme Court, two in County Courts, and sixty-three were brought in Justice Courts. Sixty of these cases, mostly in Justice Courts, have been disposed of and the sum of \$1,272.80 recovered in fines and penalties.

There were seized and destroyed, during the time, thirty-nine fyke nets, twenty-nine trap nets, one purse net, fifty-nine gill nets, fourteen squat nets, four seines and one eel-rack, the value of which is estimated to be \$3,286.00.

It may be proper to state in this connection that two of the districts were without a protector in the month of July by reason of the sudden death on June 30 of Mr. Leonard in the sixth and the resignation of Mr. Staring in the eleventh.

John Liberty,

ALBANY, N. Y., Sept. 21.

Clerk to Chief Protector.

The scale of a fish sent us by a correspondent whose address has been lost is that of the mirror carp taken from the side of the fish.

# FISHING AND FISHING WATERS.

## STRIPED BASS AT FORTESQUE (DELAWARE RIVER).

Last week I was in Bridgeport, N. J., visiting relatives, and of course took with me a pair of rods and a box of tackle. There are several fine lakes around this beautiful town, containing black bass and pickerel. The lakes are well worth a visit on account of the fine scenery. The fishing is not very good. But I had one fine day's sport at Fortesque with the striped bass, or, as they are there called, rockfish. Mr. J. Boyd Nixon, a prominent lawyer and noted angler, invited me to go with him, and told me of his trip the week before to Anglesea, near Atlantic City, and the capture of a channel bass of forty-six pounds out on the sea. He said they were quite numerous there, and that he took many of from ten to twenty pounds. Our drive from Bridgeton to Fortesque was very pleasant, over a fine road and through several villages, a distance of about sixteen miles. There is but one house there, the Fortesque Hotel, owned and kept by Capt. Garrison, a jolly old son of the brine, whose stories of the sea are very interesting.

A high wind had been blowing several days, and the water of the Delaware, which is here about twenty miles wide, was very muddy. We had intended going out to the lighthouse on a shoal half way across for sheepshead and large weakfish, but the conditions were so unfavorable that we concluded to try for rockfish in the creek. The Captain's son, Herbert, who has a fair-sized sloop, had provided plenty of soft and shedder crabs, and took us in a small boat up the creek, and for one-half day I had such sport as I have not enjoyed for many years for striped bass. We did not get any very large ones, but the run was from two to five pounds, and they are of the true fighting stock. The rig here is somewhat different from what I have been accustomed. The tide runs with great velocity and the bottom is soft, the hiding place of monster eels. We used very heavy sinkers, about six ounces in weight, and rigged a leader three or four feet above, casting a hundred to a hundred and twenty-five feet away. The bass are very shy, and can only be taken by long casts and a clean rig. The sheepshead have been scarce this season, but the weakfish and striped bass have been, and will be for a month to come, abundant. Here is good sport for the shotgun also.

There are two creeks where striped bass can be taken, the Fortesque and Straight Creek, a few miles below. Reed birds, rail, yellow-legged snipe and plenty of ducks in season, yield sport to the gunner.

The railroad fare to Bridgeton and return is \$5.25 from Newark; from Bridgeton parties must drive down to Fortesque. I took the 1:29 P. M. train to Philadelphia; from Broad Street station cable car to Market Street Ferry, thence West Jersey Railroad to Bridgeton, arriving about half past six. Fortesque would be a delightful place to take a family for a summer vacation. It has only to be known to be well appreciated. I wish here to return thanks especially to Messrs. J. Boyd Nixon and Emerson B. Garrison, of Bridgeton, for courtesies received on this enjoyable trip.

Old Isaak.

NEWARK, N. J., September 20.

## JACQUET RIVER, CANADA.

One of the prettiest places that I stopped at in my trip through the Provinces was Jacquet River. The beauty lies

not in the town itself, but arises from its situation on the Bay of Chaleur. The clear blue waves dashing on its shores and the great blue mountains towering in the distance make a scene not to be forgotten by the traveler. The bay gives excellent bathing, boating and fishing.

The village takes its name from the river that flows into the bay at this point, and Jacquet River is noted for its sea trout and salmon fishing; the former are said to be most plentiful during the first two weeks of June and in the middle of September. At these times they are running in from the sea in large numbers. Those who prefer brook trout will find them at Lake Antinori. A wagon can be used for four miles of the distance. The remaining seven has to be traveled without such a luxury. The lake is about three miles long and one mile wide. The outlet is considered as one of the fishing grounds.

Jacquet River is leased for a number of years to Mr. Streit, of Newark, N. J. Portions of the river are, however, still open, and part of Gates Pool, Benor's Big Rock, Long, Strawberry and Beach pools are not included in the leased water. I had accommodations at Mr. Barclay's house, and found him ready to show me the fishing grounds, but I had only a short time at command and only tried Gates Pool. Fishing off the rock I raised two fine salmon, which rolled alongside the fly but never touched it. Salmon stay in this pool right through the season. We had to leave without succeeding in getting either one of the fish that had risen.

Mr. Streit came up about July 7, and in two weeks took thirty fish from his water, and only a small part of them were grilse. Mr. S. Fraser caught in two weeks four salmon and three grilse. Mr. Davison took ten while here, and Mr. Pride took two and two grilse.

W. T. Morrison.

## NO "BIG INDIAN" AGAIN.

In reply to "Taurus'" contribution in your last weekly issue, allow me to say that I fully coincide with him in every detail, and only regret that I did not hear from him one minute before 9 o'clock A. M. on August 17, as that would have led me to change my plans. Nevertheless I am obliged to you and "Taurus" for your combined consideration. "Taurus'" opinion in reference to "big fellows" is correct in every particular, and I do not believe that there are any large fish in the immediate neighborhood of Big Indian, except in the private ponds, to which, however, an outsider has no admittance.

I am an inexperienced trout fisher (in fact, this was my first attempt and offence), still I must say that I was sadly disappointed as to size of fish I caught. I hooked a good many, but none above regulation size. There's no fun in that, is there? When a fellow "whips it" for two hours he ought to be rewarded with an occasional "big 'un," but "big 'uns" are not in Big Indian Creek, or whatever they call it up that way.

I, in company with a Mr. Breda (a very sociable and pleasant fellow and experienced trout fisher), tried every fair means but did not succeed. Perhaps we were too unsophisticated or our education too early neglected, or perhaps we did not make proper display of our bait bottle (which, I am sorry to say, exploded in consequence of a rather unlucky toboggan slide from a slippery rock, to attract the attention of the big fellows, for, in spite of our vigorous use of about a dozen different styles of flies, we could not coax them.

I tell you, Mr. Harris, it takes all the starch out of a fellow's

backbone to get left that way. While thanking you for your kind information, I wish to say that my mind is made up, and that is, if I want any trout, I shall never again go to Big Indian for them. The neighborhood is grand, but the boarding in some of the so-called hotels and boarding houses is worse than—well, I leave it to the reader to surmise.

Mr. Editor, should "Taurus" and his friend Marc desire to make up a triumvirate and thus get another fellow to share the joys of their coming spring expedition, I am with "em."

NEW YORK, September 15.

*Disappointed Trout.*

#### LETTERS FROM A MONTANA RANCH.

I have been fishing about every other day and have had splendid luck, but have not caught any large trout, as the bait for them is now minnows. A friend of mine caught two yesterday, one that weighed three pounds and ten ounces and one of three pounds and seven ounces; but he used minnows for bait. The whitefish are very ravenous, and about one-third of my catches is made up of them, and they are fully as gamy here as the trout.

Judge Ballou, who is stopping with me, fished with fly day before yesterday and caught thirty-four whitefish and three trout, so you can see they go for artificial bait. Some places in the river seem alive with whitefish, and I find them a fine fish to eat. I skin them instead of scaling, and they are very hard and nice. It is not very low water in the river, owing to frequent rains.

I will send you before long one of the inhabitants of the little animal houses I sent you, and I think you will be somewhat surprised at the looks of the occupant.

The grouse hunting has not been so good as usual this year, as, owing to so much rain, lots of eggs and nests have been destroyed, which made a short crop of birds; but deer and elk are seen more than usual in this vicinity, and after September 15 I expect to be living on deer and elk meat, mixed in with the trout, for I have not been without trout in my cooler for the past three months, and our people and visitors don't seem to get tired of them. By the bye, I have the best cook in the West.

*B. P. Van Horne.*

FRIDLEY, MONT., September 8.

#### AMONG THE EAGLE LAKES.

I jumped aboard the cars the other day and ran down to Three Lakes; walked to the house of Fred. French, Sr., my old guide and friend, who lives on the banks of Lakes Laura and Medicine. I found him at home and ready for a trip.

After supper we took our pipes and sat down for a chat. Fred, beside being a guide, is a bear hunter, of which animals he killed seven last spring, and what he don't know about bears is not worth telling. Next morning we got aboard a good, tight boat, took our dinners and started, passing out through Lake Laura, a beautiful lake. We then went through a short thoroughfare into Stone Lake, then across this lake through another passage, coming to Dog Lake. Through this we passed by another passage to Big Lake, a grand body of water, abounding in large wall-eyed pike, bass and mascalonge.

We had several heavy strikes from mascalonge here and got some wall-eyes. We took dinner on the shore, and came back at night tired but happy, having all the fish we wanted.

This is a beautiful trip, and takes a good day's work to do it.

The next morning we started again and went in another direction. Passing out of Laura we crossed Medicine Lake, a very fine body of water, with plenty of mascalonge and whitefish in it. Passing through a beautiful thoroughfare we came

into Little Fork, and from thence through a short thoroughfare we went into Big Fork, noted for its mascalonge and pike; then back again into Little Fork, cross it and pass into Round Lake: across that we go into Island Lake, thence into Planting Ground Lake, a large body of water, with beautiful shores and woodland scenery. From these we passed into Long Lake, when we turn back to Planting Ground, then back home.

These two days were about as enjoyable as any I ever had. We got several mascalonge and plenty of other fish. If any one wants to spend a few days for pleasure, there is no better plan. The bass are all small-mouth, and of course game to the last, and the mascalonge are the hardest fighters I ever saw. These lakes are all full of fish of the varieties named above. There are the most beautiful camping places almost anywhere, and one can fish no matter how the wind blows, for if he can't fish in one on account of wind, he can in another. The sportsmen almost always skip these lakes, where they could have splendid sport. There are plenty of boats and guides, and good ones, too.

If any sportsman who reads this wants to kill a bear, just write to Fred and make arrangements with him, and if he don't get him a shot at a bear and a deer I am mistaken. By the way, the last time Fred shot at a deer he killed two at one shot. The way to get here is via Chicago and Northwestern from Chicago to Milwaukee, then up the line of the Milwaukee, Lake Shore and Western Railway to these lakes without change.

*M.*

STATE LINE, WIS.

#### ANNUAL OUTING OF THE HELMET FISHING CLUB.

Saturday night, August 22, the Club started on their annual cruise, leaving Washington at 10 o'clock for Havre de Grace, where they were met by two of the members, who had started a day or two earlier to make arrangements for "stores," etc., and T. M. Sumption, their guest. The advance guard were ready with a brilliant display of fire works as a welcome and send-off. They went aboard the yacht *Carrie*, Capt. Wm. Poplar, and started down the bay. The Club was fortunate in securing the services of Wm. Maillden as guide, and let me say right here that he was worth every cent we paid him, as he is a Bottom Bay pilot of no mean ability, and one of the best-natured men I ever met.

About 2 P. M. Sunday they arrived at Pool's Island, fished the "Bar" off its southern point and caught a nice mess of perch for supper. The weather looking squally, the yacht was put in Bush River for harbor. Monday the Bar at its mouth was fished with success. Mr. Gowan kept them supplied with luscious peaches during their stay in this river. Tuesday the lumps in the middle of the bay, east of Drew's Bar, were fished and some fine perch caught, Weyl catching two at once, weighing between two and three pounds. Tuesday night they laid in Rumney Creek for harbor.

Wednesday the wreck of the schooner *Judge Hopkinson* yielded a nice lot of big perch, and then they started for Betterson. That night the boys went ashore to an informal dance at the Chesapeake House, and they looked very nautical in their white duck suits. It was a great pleasure to meet my old friend, Capt. Jim Woodhul, steamer *Fannie*, who stopped at Turner's Wharf for a large lot of peaches for the Baltimore market. Thursday Dove and I tried Grove and Howel's points; no fish (the heavy rain of Monday night had caused a rise in the Susquehanna and the water was getting muddy fast). The balance of the boys prepared dinner for some ladies from Baltimore whom one of the boys, in an insane moment, had in-

vited to dine with us. Weyl surpassed all previous achievements and the dinner was great. Baked rockfish, devilled crabs, fried chicken, vegetables, with peach dumplings for dessert, seemed to suit our guests, as they made it disappear in short order. During the day they were visited by Harry Brant, of the P. R. R., with his wife and several lady friends. Usual courtesies extended—cold beer and lemonade. Same hospitality extended to delegations from yacht Una and Pocono Club, of Philadelphia.

Early Friday morning they made sail, dipped their colors and started for Elk River, where they had the best fishing of the cruise, Dove catching two of the largest perch I have ever seen. Rockfish were very scarce, those we gave the ladies for dinner being caught from a pound net with a silver hook. Saturday morning, after fishing for a short time, the weather began to thicken, with some rain, and the yacht was pointed for Havre, where they arrived about 9 P. M. The "home fever" set in, and, after a weary wait, the 122 A. M. train, Sunday, was boarded, and they arrived at Washington at 4 A. M. Sunday, thus completing one of the most successful outings ever enjoyed by the Club. Our guest, T. M. Sumption, was the life of the party, ably seconded by McCathran. Tolman did not have time to do anything but eat; he was always ready to eat and never seemed to get enough. J. Gregory Howard ("Key," Uncle Tom called him) gave up everything but his boots the second day out, but afterward developed into a regular old salt. "Key" was the masher when we met the ladies, and he was tutored by Dr. Dove, who is an "old campaigner" at that business and always leaves an impression.

The muddy water stopped the bass fishing. With this exception the trip will long be remembered as contributing much to health and happiness.

C. J. J.

WASHINGTON, D. C.

#### FRESH AND SALT-WATER ANGLERS.

I am sorry to learn from your leader in No. 24 of THE ANGLER, this moment received, that you have not had the comforting success that you so much deserve from your efforts and earnestness; that the form of THE ANGLER will be changed, and that it will appear only as a monthly publication. Please notify me when my subscription is due for a continuance of my copy, and I will take pleasure in having it renewed.

I was really pained at the death of *Hook and Line*. It was the only worthy print, breezy, salt and fishy, ever given to the public on that particular subject. Its material was practical, interesting, reliable, natural. You (or somebody else) lamented a few years ago that the salt-water anglers contributed nothing to the literature of angling. I have no doubt that the reason for their silence is that they are (as to some) people who have not education to see and to tell what they have seen; as to others, the majority, a day's fishing is a day's drinking, an outing for a romp. I have seen many of them; they will refuse to buy a copy of a journal containing the very information they require, because they "need the money for something else," and will straightway spend a dollar and a half for beer and tobacco, with prominent accompaniments of noise and profanity.

The stream and lake anglers are usually people of cultivation, of some latitude as to means, who enjoy a solitude more or less removed from the racket and din of active life, and who are able and often willing to express themselves gracefully and instructively with a pen.

Again, salt-water fishermen, when unobjectionable as to demeanor, and where appreciative as to Nature, usually have but little time for recreation, and often return disappointed

after a day on the water, which may be their last for weeks or for the season, for we know that the days of poor fishing, by reason of unfortunate wind, or water, or weather, and the mysterious absences of fish, are many even to him who has his time at command and is acquainted with the grounds to which he proposes to resort.

But with all these inevitable hindrances to a record and literature from salt water, I did hope that *Hook and Line* could be preserved to us. I trust that its attractive character may to some extent at least be vouchsafed to us who will stand by THE ANGLER so long as it floats.

A. E. C.

NEW YORK, September 15.

#### EXCELLENT TROUTING AT LAKE EDWARD.

The undersigned subscribers to THE AMERICAN ANGLER, having lately returned from Lake Edward, Province of Quebec, and feeling that the readers of that paper would be interested in the result of our trip, report excellent fishing at that lake. Brook trout of magnificent size and color may be found there in large quantities. In the evening of our first day at fishing we weighed ten of our largest trout, and found them to weigh thirty-three and a half pounds, an average of three and a half pounds apiece, although two weighed nearly five pounds apiece, and four weighed sixteen and three-quarter pounds. The fishing at Lake Edward is splendid, and first-class accommodations can be obtained at the hotel. Numerous camps built along the shores of the lake at different points afford the angler additional opportunities for fishing.

Messrs. T. M. Scott, of the Dominion Bank, and A. Y. Blain, of Toronto, caught some very large specimens of brook trout. Although Lake Edward is quite distant from our city, we feel well repaid with the result of our trip.

Jno McCann,  
Edward Dwyer,  
Eugene Cummings,  
Louis Cummings,  
Jno J. Pender.

ALBANY, N. Y.

#### FISHING AT JUPITER INLET, FLA.

Messrs. Albert Robert and W. H. Parkin made following score in the above named water on September 12 and 14. The fishing was for two hours each on two outings: Channel bass, 16, weight of largest 17 lbs., total weight 112 lbs.; gray snappers, 23, largest 8 lbs., total 91 lbs.; bluefish, 2, largest 14 lbs., total 22 lbs.; sea trout (southern weakfish), 1, weight 6 lbs.; sergeant fish, 8, largest 24 lbs., total weight 116 lbs. Weather clear; young flood and wind from Northeast. Cavalli (jack) not counted and returned to the water.

#### A FISHING CONTEST.

A genuine fishing bout was held on September 9 by members of the Canandaigua Anglers' Association, of Canandaigua, N. Y. The fishermen were divided into two crews, and they fished from daylight in the morning in patience and hopefulness. The scores were as follows:

Fred Crandall, captain, 286; George Sterling, 11½; H. Van Vechten, 66; O. J. Hallenbeck, 39½; Wm. Spangle, 107½; P. E. Leach, 23; M. T. Powell, 84½; H. H. Lane, 18; O. C. Armstrong, 34½; total, 670½.

Wm. H. Fox, captain, 15½; Charles Sheffield, 16½; C. C. Wilcox, 16; W. G. Smith, 5½; S. R. Sutton, 174; Stuart Beard, 208½; C. M. Green, 68½; A. Padelford, 44; W. H.



Knapp, 252; Homer J. Reed, 479; A. L. Beahan, 22; total, 1,301½.

We presume the figures represent pounds; if so, the aggregate was so enormous that we can scarcely credit the eye that looks upon it.

Highest score of black bass, Stuart Beard; highest total score, H. J. Reed; largest score of pike, C. M. Green; largest fish caught with fly, F. D. Crandall; largest trout, S. R. Sutton; largest pickerel, W. M. Spangle; highest score of chub, W. H. Knapp.

The prizes awarded were: For highest score of any and all fish, a split bamboo bass rod; for highest score of black bass, a Bethabara bass rod; for highest score of pike, a silk trolling line; for highest score of chub, a willow fish basket; for largest trout, a set of three silver trolling spoons; for largest pickerel, a gold Seth Green trolling gang; for largest fish caught with an artificial fly, a silk fly line.

#### GOOD FISHING IN COSSAYUNA LAKE.

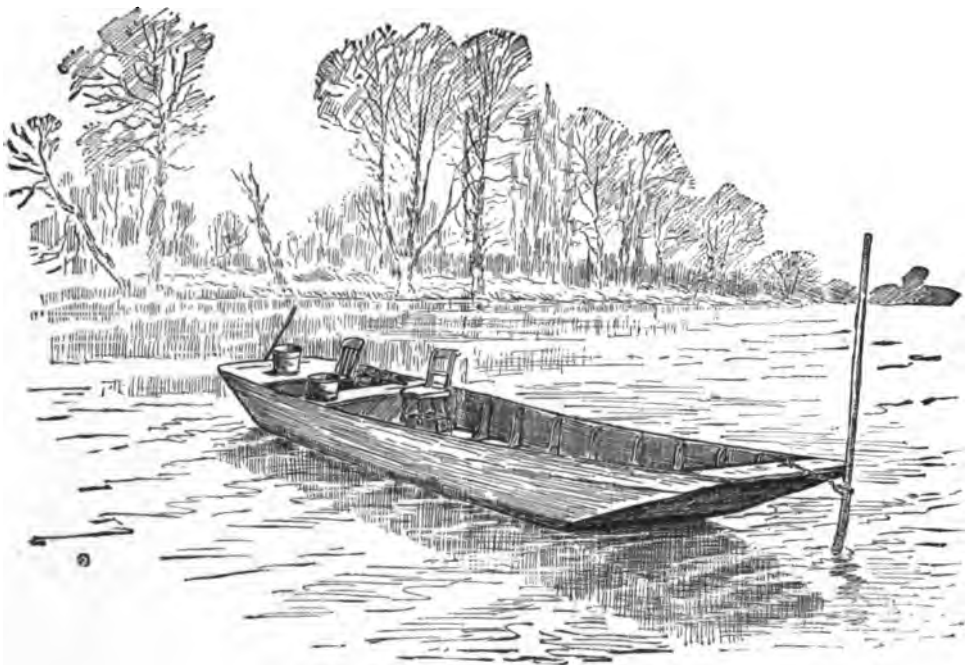
Mr. C. W. Ferris and Master Harry Ferris, of New York, and your correspondent, of Cossayuna, caught on September 9 and 10 over one hundred pounds of fish. A large number were

bass, and above the average in size. Bait, minnows and dobsons.  
W. P. McClellan.

#### A GOOD CATCH ON THE POTOMAC.

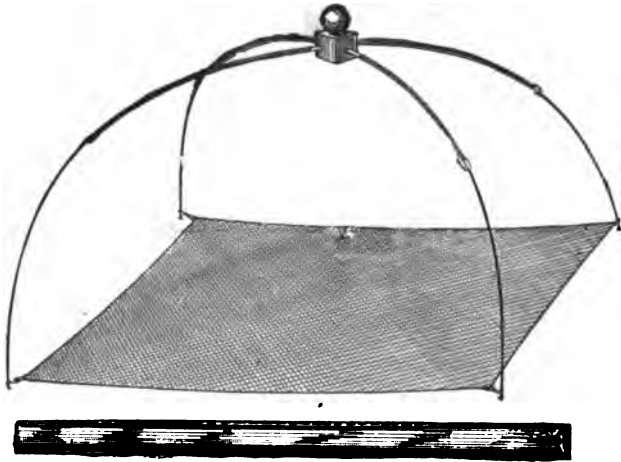
On August 16, 17 and 18, Messrs. P. B. Otterback and H. C. Coburn caught near the "Club House," seven miles above Washington, 23 black bass, smallest 1½ lbs., largest, 4¼ lbs. On September 15 and 16 same gentlemen caught 29 black bass, smallest 1 lb., largest 3¼ lbs.; 1 striped bass, weight 4¾ lbs.  
C. F. F.

**IMPORTANT CHANGES.**—The Double Service of the Fall River Line will be discontinued after this date, the Pilgrim and Providence remaining in commission. Commencing September 27, steamers will leave New York week days and Sundays at 5 P. M., connecting at Fall River with Pullman vestibuled trains for Boston. Express trains are run from the steamer landing at Fall River to all other points on the Old Colony system and in connection with trains for all points east of Boston. A general reduction of fares by this route will go into effect on the 1st of October. The steamers of this line touch at Newport in each direction between New York and Fall River throughout the year.





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INCHES LONG BY 2½ INCHES IN DIAM-  
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### A BASS ROD FOR SALE.

A split bamboo black bass casting or bait rod for sale. Never been used. Price \$10. Cost \$16. Address this office.

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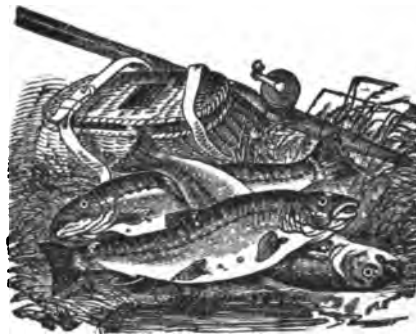
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The SPOKANE RIVER in Washington, accessible from  
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reasonable. Attractions and facilities for sport unsurpassed.

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and fishing in the Northwest; also "Wonderland," in refer-  
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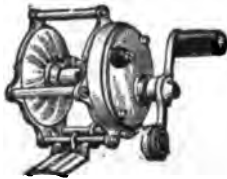
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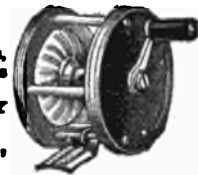
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Number 2

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THE

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ANGLER

AN ILLUSTRATED

MAGAZINE

OF FISH, FISHING, & FISH CULTURE.

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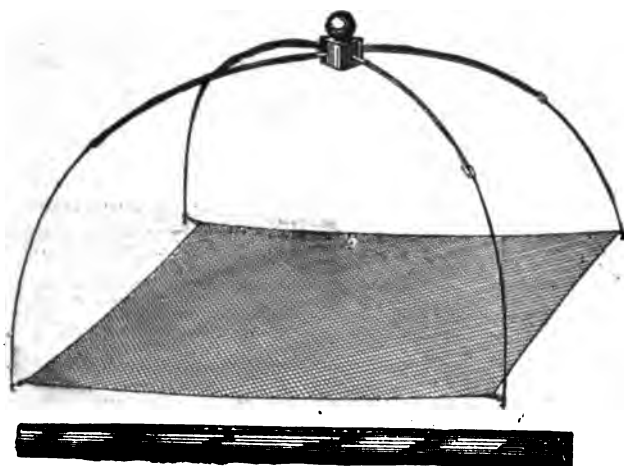
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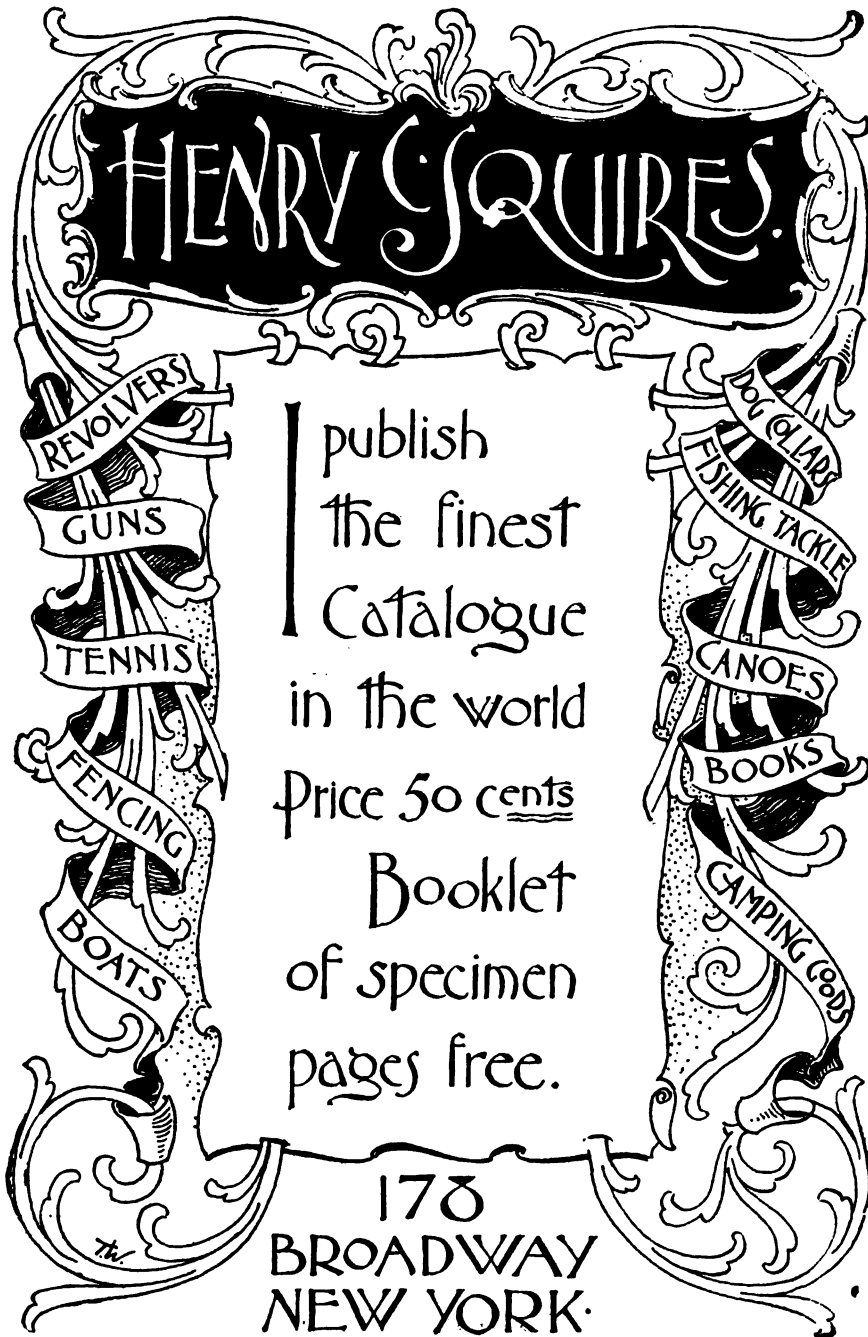
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# THE AMERICAN ANGLER.

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No. 2.

## A RECONNOISSANCE OF THE STREAMS AND LAKES OF THE YELLOWSTONE NATIONAL PARK, WYOMING, IN THE INTEREST OF THE UNITED STATES FISH COMMISSION—THE FISHES OF THE PARK.

BY DAVID STARR JORDAN.

In the summer of 1889, at the instance of Captain F. A. Boutelle, U. S. Army, acting superintendent of the Yellowstone National Park, a brief visit was made to the Park by Hon. Marshall McDonald, U. S. Commissioner of Fish and Fisheries. It was made very evident from the observations of the Commissioner that much could be done toward enhancing the attractions of the great national "pleasuring ground" by the stocking of those of its various streams and lakes which are now destitute of fishes.

In September, 1889, the writer was requested by the Commissioner to make a visit to the Park for the purpose of procuring exact data preliminary to the work of introducing trout and other fishes. Dr. Charles H. Gilbert was asked to assist in this work.

The memorandum of instruction ran as follows:

"A considerable portion of Yellowstone Park is a volcanic plateau, in which have been excavated the lakes Yellowstone, Shoshone and Lewis, and a number of smaller lakes. The drainage from this region reaches the headwaters of the Snake and Missouri rivers by falls impassable to fish, most of which are within the limits of the Park, and some beyond the limits. The waters above these falls (the aggregate basins embracing an area of some one thousand five hundred square miles), so far as my observation extends, are entirely barren of fish except Yellowstone Lake and its trib-

utaries, in which the black-spotted trout, *Salmo purpuratus* (*Salmo mykiss*), is very abundant. I have proposed to undertake to stock these waters with different species of *Salmonida*, reserving a distinct river basin for each.

"It is important to settle in advance what I believe to be the fact, that there is now an entire absence of fish fauna in the region above the falls, except Yellowstone Lake, and to determine precisely and fully the species to be found in the waters draining from the Park and below the impassable obstruction. It is also desirable to get information in regard to the parasitic flesh-worm which is so common in the Yellowstone trout, and to receive suggestions as to the study of this parasitic worm.

"The waters proposed to be stocked should also be examined with reference to the abundance of other forms of aquatic life which might serve as food for the fishes, both the fry and the adult. Special study in this regard should be made of the waters of Lakes Shoshone and Lewis, which it is proposed to stock with the land-locked salmon and Loch Leven trout.

"Capt. F. A. Boutelle, U. S. Army, acting superintendent of the Park, will be notified by telegraph of your proposed exploration, and requested to give you every facility for it."

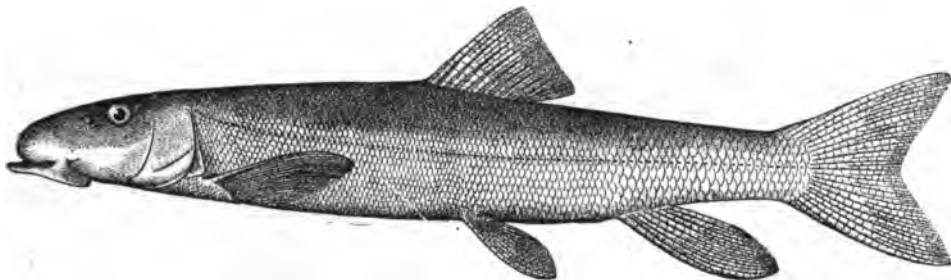
Other engagements rendered it impossible for us to start before September 24, 1889, a late date for such work, as the climate of the Park is subarctic, and serious snowstorms may

be expected at any time after the middle of September. We were very fortunate, however, as we arrived in the Park just after a storm, and throughout our stay Indian summer weather prevailed and no time was lost on account of snow.

Our trip was necessarily considerably hurried, though long enough to enable us to make out the leading points of the problems in question. A more complete survey of the Park and the surrounding region would enable us to work out in detail the distribution of the fishes found lower down the streams. The distribution of the Miller's Thumb or Blob (*Cottus bairdi punctulatus*) needs special study. The distribution and conditions of life of the parasitic worm (*Dibothrium cordiceps*, Leidy)

The following is a classified list of the waters examined, those lakes and streams containing trout being printed in italics :

YELLOWSTONE BASIN.		Winter Creek.
<i>Yellowstone River.</i>		Indian Creek.
<i>Yellowstone Lake</i> (altitude, 7,741 feet).		Glen Creek.
<i>Riddle Lake</i> (altitude, 7,900 feet).		MADISON BASIN.
<i>Solution Creek.</i>		<i>Madison River.</i>
<i>Bridge Bay Creek.</i>		Firehole River.
<i>Arnica Creek.</i>		Iron Spring Creek.
<i>Trout Creek.</i>		Little Firehole Creek.
<i>Alum Creek.</i>		Goose Lake.
<i>Cascade Creek.</i>		Nex Percé River.
<i>Sulphur Creek.</i>		<i>Gibbon River.</i>
<i>Antelope Creek.</i>		<i>Cañon Creek.</i>
<i>Tower Creek.</i>		<i>Horseshief Spring.</i>
<i>Lost Creek.</i>		SNAKE RIVER BASIN.
<i>Elk Creek.</i>		Shoshone Lake (altitude, 7,740 feet).
<i>Oxbow Creek.</i>		Heron Creek.
		Lewis Fork.



GRAY SUCKER (*Catostomus commersoni*).

found in the trout of Yellowstone Lake, as well as those of the larger worm found in the sucker of Witch Creek, will demand a whole summer's attention from some one familiar with the subject.

In all our work we had the cordial and intelligent coöperation of Captain F. A. Boutelle, acting superintendent of the Park; of Lieut. W. E. Craighill, of the U. S. Engineer Corps, and of Lieut. Edwards, U. S. Army. We were fortunate in securing the services, as guide, of Mr. Elwood Hofer, to whom we are indebted for much valuable help. Mr. E. R. Lucas, of the distributing division of the U. S. Fish Commission, also aided us materially by collecting specimens from tributaries of Madison River and Henry River. Mr. Arnold Hague, of the U. S. Geological Survey, also gave us considerable valuable information.

Geode Creek.  
*Black-tail Deer Creek.*  
*Laba Creek.*  
*Lupine Creek.*  
*Gardiner River.*  
 Twin Lakes.  
 Obsidian Creek.  
 Beaver Lake.

Lewis Lake (altitude, 7,720 feet).  
*Heart Lake* (altitude, 7,469 feet).  
*Witch Creek.*  
 Howard's Creek.  
 Henry's Lake.

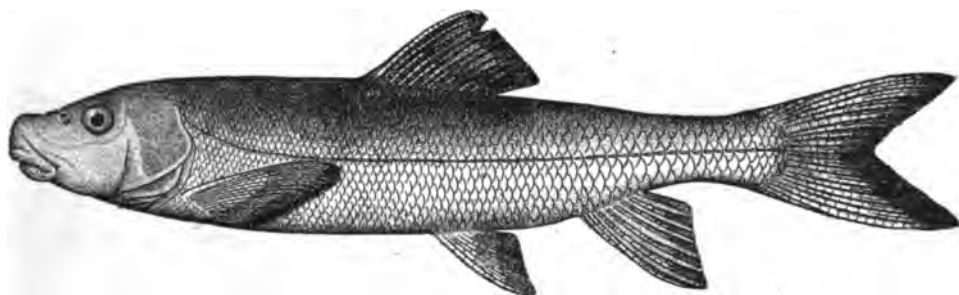
The Yellowstone Park is a high plateau, having an elevation of 7,000 to 8,000 feet above the sea. Its entire surface, with the exception of the Gallatin range of mountains in the north-west and some granitic summits in the north-east, is covered with lava, with its varieties of obsidian, rhyolite, etc. This mass of lava covers to a great depth what was previously a basin in the mountains. According to Mr. Hague, the date of the lava flow is probably Pliocene. Its existence was of course fatal to all fish life in this region. Since its surface has

become cold, the streams flowing over it, most of them now wholly unaffected by the heat within, have become well stocked with vegetable, insect and crustacean life, but are for the most part destitute of fishes. The cause of this absence of fishes is to be found in the fact that nearly all the streams of the Park, on leaving the lava beds, do so by means of vertical waterfalls situated in deep cañons. Except in the Yellowstone and its tributaries, in Gibbon River and in Lava Creek, no fishes have been found above these falls, and the presence of fishes in the Upper Yellowstone and Lava Creek is doubtless due to the imperfect character of the watersheds separating these streams from others.

The following is a list of the waterfalls in the

Outside the Park the falls in Clarke's Fork of the Yellowstone exclude fish from that river, and perhaps the great Shoshone and American Falls in Snake River exclude from the upper part of the stream the fauna of the Lower Columbia. Another supposed obstacle to the spread of fish life in the Yellowstone Park is the presence of the innumerable hot springs, solfataras and geysers, for which the region is famous. Although these springs exist in almost every lake basin, cañon or other depression in the Park, we do not think that in their present condition, at least, they would stand in the way of the stocking of the streams and lakes with fishes.

The water of the geysers and other calcareous and silicious springs does not appear to be



RED HORSE SUCKER (*Catostomus ardens*).

Park, supposed to be unsurmountable by trout. No account is here taken of the numerous falls in small brooks or in mountain torrents unsuited to fish life :

Great Falls of the Yellowstone, 308 feet high.  
Upper Falls of the Yellowstone, 109 feet high.  
Crystal Falls in Cascade Creek, 120 feet high.  
Tower Falls in Tower Creek, 132 feet high.  
Undine Falls in Lava Creek, 60 feet high.  
Lower Falls in Lava Creek, 50 feet high.  
Wraith Falls in Lupine Creek, 100 feet high.  
Falls in Slough Creek.  
Osprey Falls in Gardiner River, 150 feet high.  
Rustic Falls in Glen Creek, 70 feet high.  
Virginia Cascades in Gibbon River, 60 feet high.  
Gibbon Falls in Gibbon River, 80 feet high.  
Keppler's Cascade in Firehole River, 80 feet high.  
Firehole Falls in Firehole River, 60 feet high.  
Falls in Lewis River, 80 and 50 feet high.  
Moose Falls on Crawfish Creek.  
Union Falls on Mountain Ash Creek.  
Terraced Falls and Rainbow Falls on Falls River.  
Iris Falls and Colonnade Falls on Bechler River.

objectionable to fishes. In Yellowstone Lake trout are especially abundant about the hot overflow from the Lake Geyser Basin. The hot water flows for a time on the surface, and trout may be taken immediately under these currents. Trout have also been known to rise to a fly through a scalding hot surface current. They also linger in the neighborhood of hot springs in the bottom of the lake. This is probably owing to the abundance of food in these warm waters, but the fact is evident that geyser water does not kill trout.

In Heart Lake trout was found most plentiful about the mouth of the Warm Witch Creek. Suckers and chubs (*Leuciscus atrarius*) ascend this creek for some distance, although half its water comes from geysers and hot springs. The chubs are found in water in which the temperature is about 85° Fahr.



The Hot River, which drains the Mammoth Hot Springs, flows into Gardiner River. Trout abound about the mouth of this stream, and here, as in numerous other places in the Park, the conventional trick of catching a trout in cold, and scalding it in hot water, is possible. Below the mouth of this Hot River young suckers (*Catostomus griseus*) were found in a temperature of about 88°, and young trout in a temperature of about 75°.

Miller's Thumbs abound in the Gibbon River about the hot springs. Three were found boiled in the edge of the river below Elk Park, at the mouth of a hot tributary. The volume of hot water poured into any river is greatest in the Firehole, below the upper Geyser Basin. The stream, however, is hardly warm, and the water has little mineral taste, though the abundant vegetation gives it something of the

ities from which specimens of each were actually obtained:

CATOSTOMIDÆ (Suckers).

1. *Catostomus griseus* (Girard). Gardiner River (below Mammoth Hot Springs).

2. *Catostomus ardens* (Jordan & Gilbert). Witch Creek; Heart Lake.

CYPRINIDÆ (Minnows, Chubs, etc.).

3. *Rhinichthys dulcis* (Girard). Gardiner River (below Mammoth Hot Springs).

4. *Agosia nubilæ* (Girard). Witch Creek; Heart Lake.

5. *Leuciscus atrarius* (Girard). Witch Creek.

6. *Leuciscus hydrophlox* (Cope). Heart Lake; Witch Creek.

THYMALLIDÆ (Grayling).

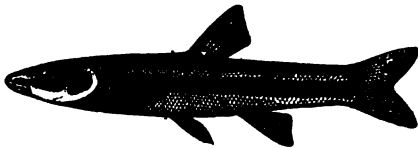
7. *Thymallus signifer* (Richardson). Horse Thief Spring;

Madison River; Gallatin River.

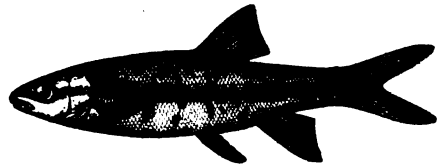
SALMONIDÆ (Trout, etc.).

8. *Coregonus williamsoni* (Girard), var. *cismontanus* (Jordan). Horse Thief Spring; Madison River; Gardiner River (below falls); Yellowstone River (below the falls).

9. *Salmo mykiss* (Walbaum). The "red-throated," cut-throat, or "Rocky Mountain trout." Heart Lake; Henry Lake; Howard Creek; Yellowstone Lake; Yellowstone River (above falls); Yellowstone River (at Livingston); Gardiner



THE DACE (*Rhinichthys dulcis*).



*Agosia nubilæ*.

flavor of stewed plants. Even this stream, it would seem, is probably not so hot nor so heavily charged with mineral substance as to be unfit for trout. Its waters constitute a very dilute alkaline silicious solution. \* \* \* \*

There are, however, numerous springs in the Park which discharge sulphurous liquids (some of them the black ammoniac sulphide, being very offensive in odor and doubtless fatal to fishes.) Most of these springs have but a very slight discharge, and so exert no appreciable influence on the streams. The upper part of Obsidian Creek between Twin Lakes and Beaver Lake is the only running stream noticed by us as likely to prove uninhabitable by fishes. An obstacle of equal importance in the lower course of the same creek is the series of three beaver dams, to which the existence of Beaver Lake is due; these, with their covering of brush, must be wholly impassable.

The following is a list of the species of fishes found by us in the Park, with a list of the local-

River (below falls); Black-tail Deer Creek; Alum Creek; Solution Creek; Riddle Lake; Cañon Creek; Madison River.

10. *Cottus bairdi* (Girard), var. *punctulatus* (Gill). Gibbon River (above falls); Cañon Creek; Horse Thief Spring.

In August and September, 1889, plants of fishes were made by the U. S. Fish Commission as follows:

Eastern brook trout (*Salvelinus fontinalis*), in Glen Creek and in Gardiner River above the falls (5,000 fishes).

Rainbow trout (*Salmo irideus*), in Gibbon River, above Virginia Cascades (1,000 fishes).

Loch Leven trout (*Salmo trutta levenensis*), in Firehole River above Keppeler's Cascades (1,000 fishes).

Mountain whitefish (*Coregonus williamsoni*). One thousand fishes in each of the Twin Lakes and in Yellowstone River below the lake.

Red-throat trout (*Salmo mykiss*), in Lava Creek above the falls.

The following notes are those made by us on the species of fishes collected in the Park:

CATOSTOMUS GRISEUS, Girard. (*Acomus lactarius*, Girard; *Catostomus retropinnis*, Jordan.)

This sucker is abundant in the Yellowstone

and Gardiner rivers below the falls, and numerous young specimens were taken by us in Gardiner River near the bridge below the mouth of the Hot River. No large examples were seen, but the species is said to reach a length of eighteen inches. \* \* \* \*

**CATASTOMUS ARDENS**, Jordan & Gilbert. (Red horse sucker.) \* \* \* \*

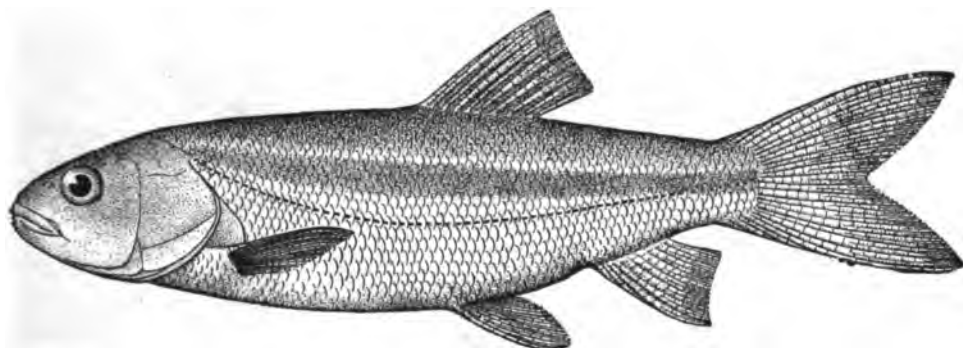
Color grayish-olive above, paler below; no distinct markings; the young vaguely barred with dark olive. Very abundant in the warm waters of Witch Creek; the young also abundant in Heart Lake. The largest taken are about eight inches in length.\*

This species seems to be indistinguishable

*Catostomus ardens* was found to contain a long, flat, intestinal worm of unusual size, so large as much to distend the walls of the abdomen. Some of these worms were more than a foot in length, and greater than the whole abdominal viscera of the fish. The worm is apparently loose in the abdominal cavity, and can be found in every case by making an incision along the median line of the belly. The infected individuals did not appear poor or diseased. These and other worms taken by us in fishes of the Park are the subject of a special report by Prof. Edwin Linton.

**RHINICHTHYS DULCIS**, Girard. (The dace.)

This species is common in nearly all cold, clear streams in the Rocky Mountains. It is



THE UTAH CHUB (*Leuciscus atrarius*).

from the common sucker of Utah (*Catostomus ardens*), and is quite unlike the *Catostomus macrocheilus* of the Lower Columbia. This fact, together with the general affinity of the fishes of Heart Lake with those of the Great Basin, suggests that the fauna of the Upper Snake River, above the great Shoshone Falls, may have been derived from the Great Basin rather than from the Lower Columbia. The effect of the Shoshone Falls as a barrier to the distribution of fishes is worthy of a careful investigation.

About one specimen in every three or four of

\* A much larger example, some sixteen inches long, has since been sent us by Dr. S. A. Forbes. It was taken with a trammel net in Heart Lake in July, 1890. The lips seem a little fuller in the Heart Lake fishes as compared with those from Utah.

rather abundant in the Gardiner River below the falls, and it might probably be introduced to advantage in the rivers above the falls as food for trout. *Rhinichthys dulcis* is an active little minnow, abounding about cascades and in swift brooks. It reaches a length of about five inches.

**AGOSIA NUBILA**, Girard.

A little fish inhabiting brooks and swift waters, agreeing very closely in appearance and habits with *Rhinichthys dulcis*. It is as abundant in the Columbia Basin as the other is on the eastern side. It extends its range southward to Utah, and perhaps beyond. We found this species rather common in the warm waters of Witch Creek. Scales, sixty-three to seventy-five; lateral line complete.

LEUCISCUS ATRARIUS, Girard. (The Utah chub.)

I identify with Girard's *Siboma atraria* a chub which is abundant in Heart Lake and which ascends its warm tributary—Witch Creek—in great numbers, going up farther than any other fish (temperature 88°). It reaches a length of about seven inches.\* *Cheonda cœrulea*, known from a single specimen from Lost River, Oregon, may be the same also. The Witch Creek fish is less slender than Girard's type, but the probabilities are that the two are identical. \* \* \* \*

LEUCISCUS HYDROPHLOX, Cope.

A few specimens, the largest about four inches long, were taken in Heart Lake and in Witch Creek. This species was previously known from Blackfoot creek, Idaho, which flows into the Snake River lower down. This species is allied to *Leuciscus montanus* (= *Clinostomus* *tanina*) Cope, differing chiefly in the longer anal, sharper snout and smaller eye. In technical characters it has much in common with *Richardsonius lateralis*, which suggests that *Richardsonius* may be a near ally of the *Clinostomus* group of the genus called *Leuciscus*.

\* \* \* \* \*

COREGONUS WILLIAMSONI, Girard (var. *cismontanus*). The mountain whitefish.

The mountain whitefish is abundant in the Madison River below the falls. It is said to be equally common in the Yellowstone River, but none were obtained by us. It is a slender and graceful fish, readily taking the fly like a grayling or trout. It is most abundant, so far as we have noticed, in the eddies or deeper places in swift streams. It seems to be essentially a river fish rather than an inhabitant of lakes.

\* A specimen over a foot long and entirely similar to the large chubs of Utah Lake has been lately sent us by Dr. S. A. Forbes. It was taken with a trammel net in Heart Lake in July, 1890.

THYMALLUS SIGNIFER, Richardson (var. *ontariensis*). The Montana grayling.

The grayling is very abundant in the Madison River below the junction of the Firehole and the Gibbon. Numerous specimens were collected for us in Horse Thief Spring, a small stream just outside the limits of the Park, by Mr. Lucas. The grayling is said to ascend the river in summer as far as the Firehole Falls and Gibbon Falls. It is said also to be found in the Gallatin River, in the northwestern part of the Park.

We have carefully compared our specimens with others collected by Judge D. D. Banta in Otter Creek, in the Keweenaw Peninsula, and with a specimen from Au Sable River, in the southern Peninsula of Michigan. The first-named locality, by the way, is one not generally known and not previously recorded. The occurrence of grayling in the northern peninsula of Michi-



*Leuciscus hydrophlox.*

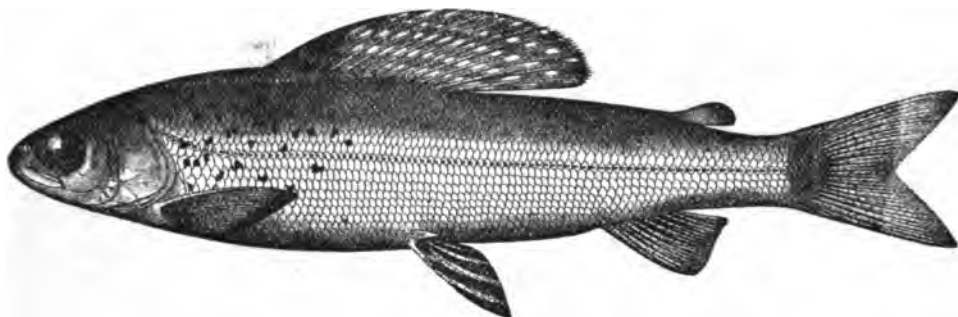
gan is even disputed by anglers.

The differences noted by Mr. Milner as distinguishing the Montana fish (as *Thymallus montanus*, Milner) do not seem to be constant. The Montana specimens are not deeper than the others (depth five and quarter), and in the number of the scales (ninety-eight) they agree with the Otter Creek specimens. The Au Sable specimen has ninety-three scales. The dorsal rays are twenty-one or twenty-two in Michigan specimens and nineteen in those from Montana. The only differences evident are in the color of the dorsal fin. This is alike in all the Montana specimens, but its peculiarities may be due to difference of season. In the Montana examples (in alcohol) the fin is largely dusky green. Its posterior part has three or four rows of bright orange-brown spots, faintly ocellated, irregular in position, some of the spots oblong and obliquely placed. Above this is one regular row of similar spots, extending obliquely across the fin from the end

of the second third of the anterior rays to the tip of the last ray. Fin edged above with the same bright orange-brown.

I have no specimens of the true northern *signifer*, but, taking the figure published in

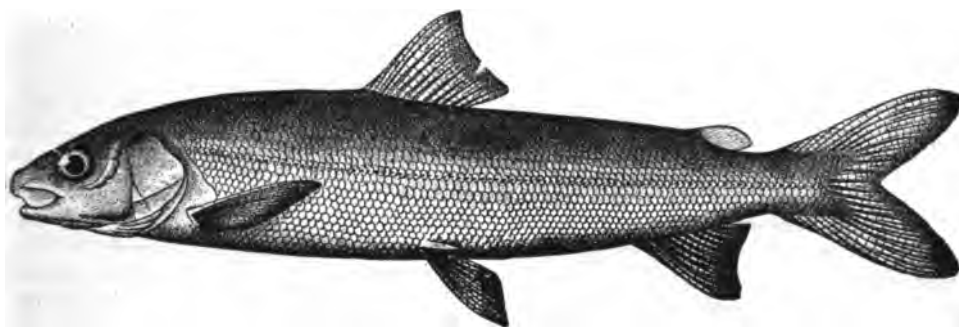
belong to a single species, and that this species is identical with the common red-throated or black-spotted trout of the Lower Columbia, and of the coast rivers from Oregon to Kamtschatka. This species was first mentioned by Steller



THE GRAYLING (*Thymallus signifer*, var. *ontariensis*).

the "Natural History of Aquatic Animals" as a basis of comparison, the grayling of Montana and Michigan may differ in the lower and less spotted dorsal and the slightly smaller scales (ninety-eight instead of about ninety-two). Should these differences hold, it will stand as

under its Russian name of *mykiss*. Later it received the binominal names—*Salmo mykiss*, Walbaum, 1792, *Salmo muikisi*, Bloch & Schneider, 1801, and *Salmo purpuratus*, Pallas, 1811. Probably all the trout of the Rocky Mountain region belong to this single species,



MOUNTAIN WHITEFISH (*Coregonus williamsoni*, var. *cismontanus*).

*Thymallus signifer ontariensis* (= *T. tricolor*, Cope = *T. montanus*, Milner).

**SALMO MYKISS**, Walbaum. The red-throated or Rocky Mountain trout. (*Salmo purpuratus*, Pallas; *Salmo stellatus*, *clarkei*, *virginalis*, *lewisi*, etc., of authors.)

I have compared a large series of trout from the Park with trout from various other streams in the Rocky Mountain region. There seems to be no doubt that all the trout in the Park

but certain marked varieties of it occur in waters of Colorado, of which a detailed discussion is given in another paper.

The trout of Yellowstone Lake seem to differ from those of Heart Lake and Henry's Lake in having the black spots larger and more distinct and rather less numerous. In these respects very much individual variation is shown. The trout from Heart Lake and from Henry's Lake are essentially like others from Walla Walla in

this regard, and those from the Yellowstone below the falls have the spots generally smaller than in those from the lake. The trout of the Upper Missouri region have received the name of *Salmo lewisi* (Girard), but I cannot recognize *S. lewisi* as even varietally distinct from *S. mykiss*. In fact, as elsewhere stated in this paper, there is good reason to believe that the Yellowstone Lake was stocked originally from Snake River, through Pacific Creek, Two Ocean Pass and Atlantic Creek. It is, moreover, not unlikely that an interchange of individuals still occasionally takes place across the Continental Divide.

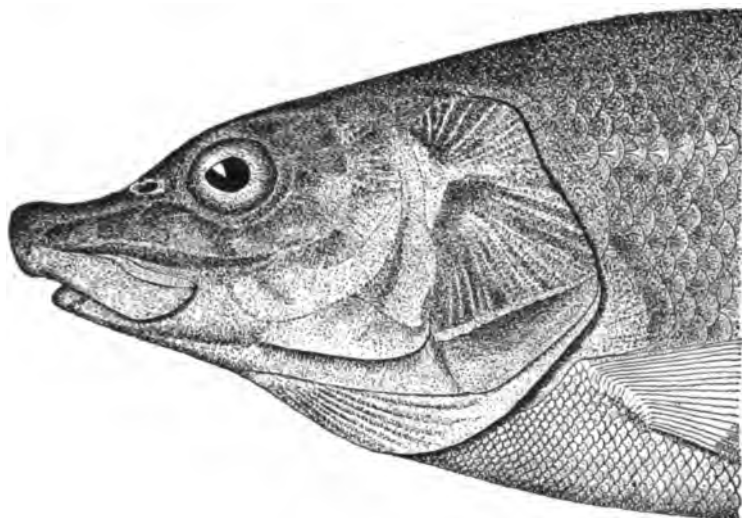
The trout of the Yellowstone Lake and of many of its tributaries above the falls are infested by a parasitic worm (*Dibothrium cordiceps*, Leidy). Of the specimens examined by us from the Yellowstone, between the falls and the lake, all showed some traces of the presence of the worm. These were first noticed by us as small whitish cysts, about as large as a grain of wheat, around the pyloric cæca, sometimes in the ovary. These cysts contain small worms, apparently similar to the larger ones. These larger worms, from one to five inches in length, are found in the liver, in the abdominal cavity, or in the muscular substance of the belly or sides. When worms exist in the flesh they can usually be found by skinning, as the flesh about them is more or less diseased. \* \* \* \*

A basket of dressed trout, taken in the Yellowstone River at Livingston, was examined. Among these was one worm three inches long, apparently of the same species as the others. Numerous other specimens were examined without developing any facts other than those included below.

I offer the following generalizations with

much hesitation, as I know practically nothing of the life history of intestinal worms of the group to which *Dibothrium* belongs.

Worms are found more or less abundant in nine-tenths or more of the grown trout in the Yellowstone Lake and its larger tributaries, and in the Yellowstone River as far as the Lower or Great Falls. The trout in the Upper Yellowstone are likewise affected, those of Bridget's Lake being (according to Mr. Arnold Hague) largely wormy, as also those in Atlantic Creek (Elwood Hofer). The small trout



MOUNTAIN WHITEFISH (*Corrigonus williamsi*, var. *cismontanus*)

(under six inches) have not been found to contain worms.

Worms are popularly believed not to exist in the lower Yellowstone (below the falls). The discovery of a worm at Livingston would contradict this. Perhaps worms exist, but are small or scarce. Those in the encysted condition would hardly attract popular notice, for ordinary observers do not even distinguish the worms from the pyloric cæca.

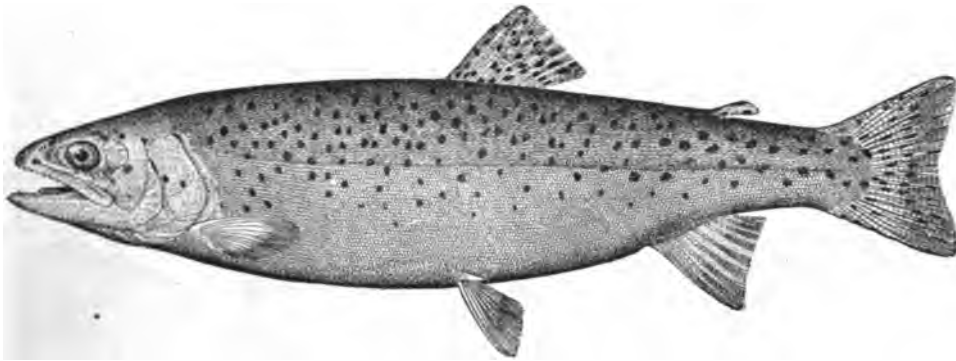
Worms certainly exist in the trout of Heart Lake, to all appearance identical specifically with those in Yellowstone Lake. This lake is on the west side of the Divide and is drained by Snake River. It has at present no connection with Yellowstone Lake.

Yellowstone Lake and Heart Lake have one

feature in common, and one shared by no other lakes containing trout with which I am acquainted (Shoshone and Lewis lakes being destitute of fishes). Both have a large influx of hot water from geysers and from hot springs, some of them outside the lakes, but many of them opening under the water. This suggests

of worms. The trout in Pelican Lake and other waters to the east of Yellowstone Lake and tributary to it, are said to be infested with worms. These lakes receive much water from Hot Springs.

Connected with this fact of the development of worms in warm waters is the fact that the



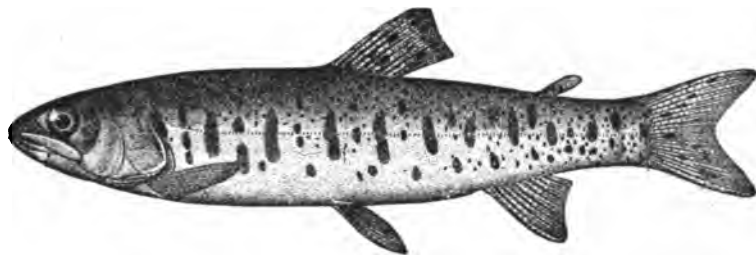
RED-THROATED TROUT (*Salmo mykiss*).

the theory that the existence of the worm itself, or perhaps its malignity as a parasite, is dependent on the presence of hot water, instead of the cold waters ordinarily frequented by trout.

As bearing on this suggestion I may notice: In both lakes the trout actually frequent the warm waters, attracted apparently by the great abundance of fish food to be found there. It is perhaps not impossible that with the great variety of insect, crustacean and worm life, the germ of the worm may occur also. The

streams in which wormy trout occur, so far as known, are all in easy access from Yellowstone Lake. Riddle Lake, although tributary to the Yellowstone, has an outlet long, narrow and tortuous, being dry at both ends in the summer. It is so difficult of access that probably trout do not often ascend it. Only young trout were seen in the creek, and the trout found in the cold waters of Riddle Lake showed no sign

suckers in the warm (largely geyser) waters of Witch Creek (*Catostomus ardens*) are afflicted with another parasitic worm. I know nothing of the history or relationship of this worm, but it is hard to avoid the supposition that the warm water favors its development. Although the sucker is a small fish, the worm infesting



RED-THROATED TROUT (*Salmo mykiss*), Young.

it is larger than any other parasitic worm I have ever noticed among fishes, and, as elsewhere stated, it often occupies more space in the abdomen of the fishes than do the fish's own viscera.

The lakes of Washington, Colorado and Utah, abounding in trout of the same species, show, as far as we know, neither geyser water nor *Dibothrium*.

It will be interesting to know whether the trout introduced into Lakes Shoshone and Lewis, both of them with similar hot tributaries, will be afflicted with worms. It will also be interesting to know whether any other species of trout will show immunity from them. Possibly an abundance of other fishes as food for trout would draw them away from the hot waters and free them from worms.

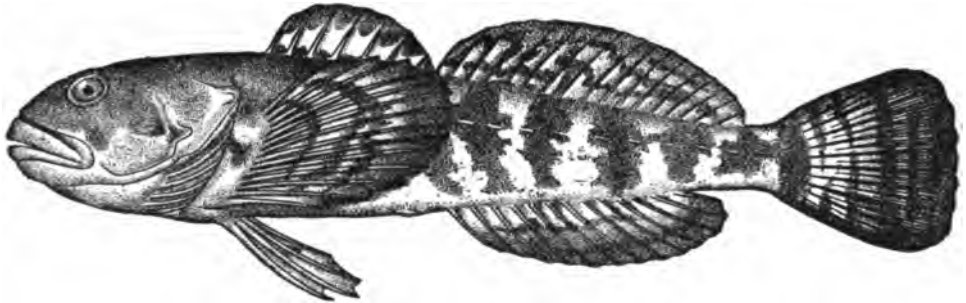
The "wormy" trout are leaner and more compressed than others, and the sides of the belly are likely to show ridges and lumps. The flesh is said to be redder in the diseased

of some competent helminthologist in the field. The life history of the worms is yet to be made known. When this is done possible remedies may be suggested. The probabilities are that the trout and the worm will never be divorced in Yellowstone Lake.

It is said the bears are often seen going about the shores of the lake picking up the dead fish.

COTTUS BAIRDI. (Var. *punctulatus*.)

The "miller's thumb" or "blob" is found in great abundance in the grassy bottoms of Madison River, Gibbon River and Cañon Creek. In Gibbon River it is found above the



MILLER'S THUMB (*Cottus bairdi*, var. *punctulatus*).

fish, and the external color is more likely to be dusky or brassy.

In the trout examined the presence of many worms was accompanied by a shrunken or irregular condition of the ovaries or testes. Perhaps spent fish are more likely to be wormy. According to Mr. Arnold Hague, the best trout are in swift or deep waters; the wormy ones about eddies or among logs or masses of floating vegetation. The wormy trout takes the fly freely, but is in general little gamy. In fact, all the Yellowstone trout seem less active than is usual for the species.

The value of these attempts at generalization can only be determined by the thorough study

falls as well as below it, an anomaly of distribution as yet unexplained, unless we call in the aid of the Osprey or some similar agency. It is said that the species is found also in the Yellowstone below the Park.

The specimens taken by us in the Gibbon and Cañon creeks, as well as those procured by Mr. Lucas in Horsethief Spring, are identical with specimens taken by us from Eagle River, Colorado, and in other tributaries of the Colorado. All of them belong to the variety or species named *Potamocottus punctulatus* (Gill), although the dark spots are generally coarser and more diffuse than is shown in Prof. Gill's figure.

## TROUT STREAMS OF SULLIVAN COUNTY, N. Y.

By D. S. KIMBALL.

The article of "Taurus" in the September 12 number of THE AMERICAN ANGLER strikes the keynote as to the condition of the trout streams in Sullivan County, at least for the past season, and unless more stringent measures for protecting the waters of that county are taken, trout fishing there will soon be a thing of the past, as it has become in so many places formerly full to overflowing with the freckled beauties.

It was my good fortune to spend my two weeks' breathing spell in the county above mentioned. I was located on the banks of the beautiful Neversink, not many miles from either Fallsburg or Liberty, and that I enjoyed my outing and "wet my feet" while plying the gentle craft "Father Izaak" was so devoted to, goes without saying.

However, this is not what I started out to write about, but rather the condition of the streams of Sullivan County as I found them, and as others described them to me. This has been an exceptionally unfavorable trout year all through that section, and the information I have obtained is the same from the Neversink, Willowemoc, Big Indian, Beaverkill and other streams, from Hunter, Grahamsville, Claryville, Bruce, Rockland, Neversink and other resorts of those who make a study of *Salvelinus fontinalis*.

The following conditions have, in my opinion, been largely the cause of so unfavorable a season: The water is, and has been, very low and very clear, and consequently warm. The food, such as bugs, grubs, beetles, worms, and small fish, chub, dace, shiners, chuckleheads, etc., are, of course, concentrated, and become an easy prey to the trout, and the latter are therefore disinclined to take either fly or bait with any eagerness. Most of the trout I caught were gorged with food, and one that I had the good fortune to capture had in its stomach five striped bugs or beetles, a large grub, a large miller, several worms, and partly digested remains of other food, apparently small fish, too indistinct to distinguish with any certainty, and

this was the general condition of all I caught. There are quantities of small trout, from four inches to less than six, in all the streams, and also numbers of large ones, at least in the Neversink, but the conditions have been very unfavorable for a good day's sport since the falling of the river.

On the 7th of August I and a fellow-fisherman took forty-four, out of which only sixteen were above the legal limit. About a week later two of us took thirty-two, and had only thirteen above six inches. Another day I took sixteen, and could only show seven above the limit. Of the small streams, while there are quantities of little fellows in them, my experience has yet to show a single one of the length fixed by law, and this will fairly indicate, I think, the large preponderance of fingerlings.

That there are still some large fish in the Neversink is easily ascertained by a careful scrutiny of the pools. In one hole, just above the Big Bend, I saw as many as fifty, a very large majority of which were above six inches, and a number over ten or twelve. In another hole I saw nine or more, not one of which would tip the scales at less than one-half to three-quarters of a pound, but all my experience with fly or bait of several kinds would not induce them to "come in out of the wet." In fact, in one pool four large ones formed a circle around my bait and kept the little fellows away, while a huge old senator, with moss an inch long, and barnacles as large as hickory nuts on his back, brought a lot of small stones in his mouth and completely covered the bait, and, after patting the mound down carefully with his tail, the five fish formed a line and swam to within three or four feet of where I was perched on a rock, and, after bowing three times and deliberately winking one eye, as much as to say, "We've seen you, we think, somewhere before," turned tail, and, driving all the small fish before them, went sailing up the ripple, keeping time with their tails to the well-known song, "We've all been there before, many a time, many a time."



But, laying all joking aside, notwithstanding the quantity of small trout in the streams, the stocking to some extent and the protection afforded under the law, which law is almost every day openly violated, trout fishing will soon be a legend in this section of the country. Fishermen will only be able to catch trout "in their minds" if "fish butchers"—those who "would rather have the little ones" and who swear by quantity and not by quality—are not more closely watched and the penalties of the law applied promptly.

Liming a brook is a very easy process, and a net takes but little room in one's pocket, and there are doubtless those on, or near, all the streams not above applying any means for getting all the trout they want to use or sell, and it behooves the game wardens and those interested in the perpetuation of this most beautiful, as well as the most gamy of all fishes, to apply the remedy of the law without fear or favor.

When a box of one hundred and eight, caught in one day by two fishers, and one of these the would-be "champion fish catcher of the county," is shipped to the city, it is not hard for those understanding the status of things there to compute pretty nearly how many were below legal limit, and, although the fishing has been below the average the past season, it has not been difficult for the fisherman (God save the mark) with the "know it all" and the "wherewithal" to obtain as many trout as required. It is also not very difficult to understand by the initiated how one man can go for a day's fishing and return with a creel full of as fine trout as one wishes to look at, when such anglers as Mr. C. S., of New York, Dr. V. G. and Mr. McC., of Brooklyn, and others I could name, as true and scientific anglers as ever tied a fly or whipped a stream, and who know every foot of the river as well as the streets of their own towns, go, day after day, and fail to bring to creel as many over six inches as would make a hungry man a meal.

Fly-fishermen, such as I speak of above, have, in addition to the exceptionally unfavorable conditions existing the past season, another difficulty to surmount on these waters, and that is the limited number of flies that can be used with any hope of success.

Gaudy flies are "N. G.," and that angler who is so unfortunate as to have his book full of remembrances of Maine or the Adirondacks, such flies as scarlet ibis, Romeyne, royal coachman, peacock, yellow Sally, green drake, etc., and the bright hackles, cannot expect much more luck than fell to the boy who "went fishing for a whale, and all the water that he had was in his mother's pail."

The flies which will conduce to any measure of success are, in my experience, the dull and sombre-colored, such as Chantry, alder, gray drake, cinnamon, cowdung, black June, yellow-bodied professor, white-winged coachman, widow, blue bottle, yellow May, shad, black and yellow ant, the gnats and dark-red and yellow-bodied hackles, and all tied on as small hooks as possible; a No. 10 Sproat is none too small. All wings and tails should be small, and the reds, yellows, blues and greens should not be bright, but of the subdued shades. A very killing fly is one tied by an old frequenter of this section. It has a dull yellow body, with one spiral winding of black silk, very small brown, gray or cinnamon wings, with small white spots, no tail, and tied on as small hook as a small ant—I think a No. 14 Sproat. It is not a tailless professor, although somewhat similar.

Of course the trout here are like trout everywhere, and will at times take anything offered, and then, again, cannot be obtained by any save illicit means, but the flies mentioned above, and others kindred to them, are pretty certain to give satisfaction during a season's fishing, or year in and year out.

I should think the caddis would be a killing fly, as there are on the stones of the stream numbers of the cast-off shells of the worm, and in relation to this it was, to me, an astonishing fact that not one of the natives knew what they were, and an old bass fisherman, who was at the same house with me and fished the same stream, insisted they were discarded shells of the helgramite.

The natural conditions of the Neversink are splendid for the perpetuation of the trout, and, if the law was respected, it would be second to none as a most satisfactory resort for those delighting in the gentlemanly sport of angling.

The natural enemies of the trout are few. I saw on eight miles of the river, all the time I was there, only one kingfisher. There are no mink that I could hear of, ducks are scarce the year round, and what snakes there are are of an inoffensive character and of the land species. There are some eels in the deep and sluggish pools, and, of course, they prey more or less on the spawning beds, but, upon the whole, I hardly know a stream with so few drawbacks and so many conditions favorable to a continuation of trout life.

The New York, Ontario and Western Railroad Company stock this section to a limited extent, and some additional planting is done by individuals, but not ten per cent. of what is required in the face of the unlawful means taken to deplete the streams. And while these efforts are in the right direction, I think a few thousand fry of the brown trout (*Salmo fario*) judiciously distributed for a few years, and not dumped down in everybody's dooryard indiscriminately, would do more, and in a shorter time, to replenish the streams than the haphazard efforts now made to keep the water up to the standard with *Salvelinus fontinalis*, especially when the fry is put into streams which run dry in summer, or are polluted by barnyard refuse or worse, or choked with sawdust and the refuse of mills and factories.

If my information is correct—and, if not, I should like to be enlightened—*Salmo fario* is as easily, if not easier, propagated than *S. fontinalis*, and grows, under the same conditions, in the proportion of about five to three in weight till maturity. It is as gamy and toothsome as *S. fontinalis*, is better adapted to general trout waters, and a better parent on the spawning bed. An old buck *S. fontinalis* will commit more depredation on spawning beds than half a dozen ducks, and these are the old rascals who grow fat at the expense of their relations and are seldom caught.

However, whatever may or may not be the merits of *Salmo fario*, I talked him up in season and out of season until, I suppose, the people with whom I came in contact put me down as a confirmed crank on that subject, and wondered how I could look *S. fontinalis* in the

face without a blush, or offer him any inducement, in the shape of fly or bait, to "become better acquainted."

As most of this is probably an old story to you, I am afraid I have strung it out until it is a tax on your patience to wade through it, but it appeared to me, while on my limited vacation, that all was not being done, even with the help of the law, to prevent *S. fontinalis* becoming a thing only to be talked about as almost a myth. It seemed to me that more concerted action between the game warden and those interested locally is required, and that, as the warden cannot be in more than four places at once, the law is in a fair way of becoming a dead letter, from inability to punish its open and known violators from want of the above-mentioned concerted action.

That spasmodic and ill-applied stocking, while the depredations continue, is of very little effect, like "saving at the spigot and wasting at the bung hole," and that an intelligent study of the streams, so as to be able to populate them with fish most suitable to their several waters, is needed, and that at once, or a legal closing of the streams for three, or five, or more years, or an alternate close and open season much longer than at present, to be determined by the condition of the different waters, a limiting of the individual catch, and any other protection deemed wise by those in authority having the true interest of this matter at heart, together with an adequate provision, under severe penalties, for protection during both close and open season.

And now, Mr. Editor, I am done, and should you see fit to publish this, and should it be of any effect in helping to protect the streams, which are fast becoming as "dry holes in the desert" so far as trout are concerned, my object will be more than accomplished; but all the writing and talking, past, present and future, will not avail if anglers—in the truest sense of the word—do not combine to put an end to the unlawful methods now in vogue, and if they do not, they will in the near future realize the pith of the words of an old song, "You'll never miss the lager till the keg runs dry."

## AMATEUR FLY TYING.

### SECOND PAPER.

By S. K. PUTNAM.

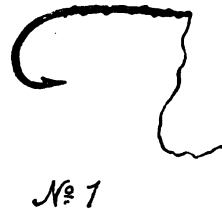
Before I give the process of tying a fly I will say a few words about dyeing feathers. Of course it is best to use the natural feathers, but this is not always possible, particularly with the hackles. As the descriptions of the different flies will call for green, scarlet, crimson or some other dyed color, you will be obliged to dye some, unless you wish to pay your tackle dealer a big price for them. About the best dyes I have found are those sold by every druggist under the name of Diamond Dyes. These are obtainable everywhere, also easy to use, and as permanent and waterproof as any. Follow the description on the outside of each package, except where it says "put in enough vinegar to make the mixture sour." Use a little pinch of oxalic acid and you will find it will set the color much better than vinegar.

As it is just about as easy to make the reversed or turned-back wing as the plain winged flies, and as they are much better, I will start right in with a fly of that style of wing. The "Light Montreal" is about as simple a fly as I can see in my sample book, and I will commence with that one. The description of this fly reads as follows: Tail, two or three fibres of gray mallard; body, scarlet silk floss ribbed with gold tinsel; legs, scarlet hackle; wings, gray mallard. If the description of a fly does not say *how* a hackle is tied, it is always understood to be tied at the shoulder only.

Fasten your vise properly to the table on which you are going to work, and place in it a No. 8 hook with the shank pointing toward the right (I say a No. 8 hook, as this is a very convenient size to learn with). The hook should be seized in the jaws of the vise by just the bend only. Now break off from twelve to fifteen inches of your binding silk and wax it thoroughly with your shoemaker's wax. Don't be afraid of your wax; draw the thread over it eight or ten times. A good way to do this is to fold a small piece of leather and place your wax in the fold. You can then draw the thread over the wax, and the pressure of your thumb

and fingers while holding the leather will wipe off all superfluous lumps of wax that adhere to the thread and leave it nice and smooth. This method also prevents your hands from being soiled with the wax, as the feathers, silks and other materials will stick to your fingers if you handle the wax much, for little particles of it will remain on your hands no matter how carefully you touch it. Your thread being properly waxed, give it five or six turns around the hook, being sure to carry it up to the extreme end of the hook (see cut No. 1).

This is contrary to all methods of the professional fly-dresser; he always leaves a little space at the end of the hook. Just at this point



is where the gut generally breaks, but if a wrapping or two of thread is placed between the gut and the hook it will act as a kind of a cushion and keep the gut from chafing on the sharp end of the shank.

Then lay on the gut, first having soaked the end for a few minutes in lukewarm water, and bind it on with the binding silk, all the while keeping quite as much strain on the silk as it will stand without breaking. The gut being a little soft from the soaking, the strain on the silk will make little dents in the gut, and these, together with the sticky wax and the few turns of silk between the gut and the shank of the hook, will hold it on firmly. To make all sure, give a good, strong pull on the gut after it is whipped on, as a test. Before you put on the last two or three turns of the binding silk place the end of a strip of tinsel, two or three fibres of gray mallard feather and the end of a short piece of silk floss so that these last wrappings

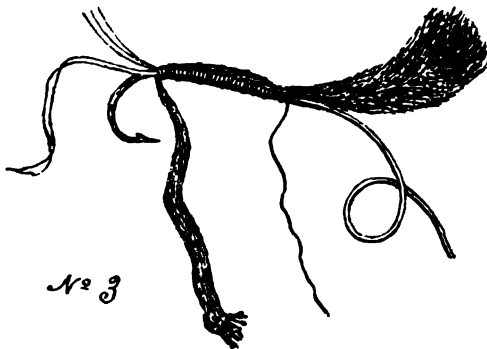
will fasten them. The floss should be prepared first by untwisting it. As silk floss is only of two strands, this may be easily done; part the strands at one end and tear them apart, and lay them together again without twisting. Your work at this point will have the appearance shown in cut No. 2.

Now take a gray mallard feather and lay it, convex side up, with the end extending out over the snood, and wrap it on with the binding silk as in cut No. 3. This feather should extend



No 2

out over the snood far enough to allow it to reach to the bend of the hook, when it is turned back for a wing. By laying this feather on and wrapping it the full length of the body it fills out the body and takes the place of wool or some other material that otherwise you would have to use. Now take the end of your silk floss and wind it, without twisting, around the hook, making the body of your fly of good shape by giving an extra wind where necessary.



No 3

Stop about an eighth of an inch from the end of the shank to allow room for legs, and fasten it by two or three turns of the binding silk. After this wind your tinsel over the silk, first

giving it two or three turns around the bend of the hook, and fasten it by a turn or two of the binding silk. Next take a hackle feather; for this fly the hackle must be dyed scarlet. Hold it at the extreme point by the thumb and finger of one hand, and with the other thumb and finger stroke down the flues of the feather toward the butt, thus leaving the point standing out by itself. Catch this point now to your fly by a couple of turns of the binding silk, and the whole of your work at this point will have the appearance of cut No. 4.

Now comes the particular and, I may say, the most difficult part of fly tying, that of putting on the hackle properly. Take your hackle feather by the stem and wind it once around the hook; wind *from* you. Then with your left thumb and finger smooth back toward the bend of the hook the part wound. Hold it in that position and give your hackle a second turn, then repeat the holding-back process and another turn. Continue this until you have



No 4

sufficient hackle on to form the legs of your fly, and fasten the end by two turns of your binding silk. Now pick out with your stiletto the fibres that have been wound under, cut off the end of the feather not used, and give four or five turns with the binding silk to hold it all securely. At this point your fly will appear as represented by cut No. 5.

If your hackle does not wind on even and too many fibres are wound under, unwind it before you cut off the end and rewind it, and you will

find it will go on all right. This winding of the hackle will need more practice than all the rest of the work. Now turn back your wing to its proper position, give it one wrap of the binding silk and two half hitches, and your fly will be completed as in cut No. 6. When the work is finished touch a little shellac to the

Attach a short piece of gold tinsel, and, after giving it two or three turns around the bend of the hook, fasten it and cut off the end. This tinsel is not absolutely necessary, but a slight show of the bright metal at the end of the body of all hooks gives a kind of finish and makes a better looking fly. Prepare your hackle (a brown one) by stroking back the fibres, so as

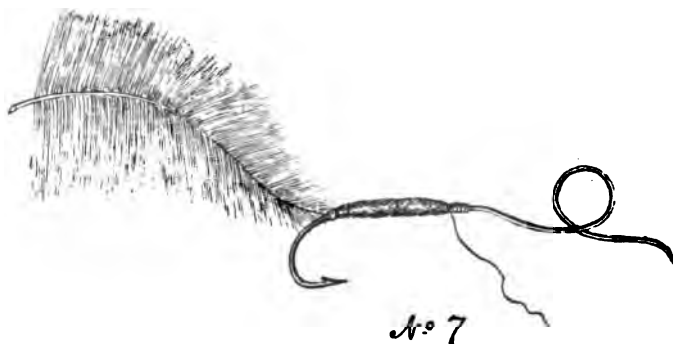


knot to prevent it from slipping, and to make it waterproof.

You will notice that I say nothing about tying the binding silk at the different stages. Don't tie your binding silk at all until your fly is finished, then put a couple of half hitches only. If you put a proper amount of shoemaker's wax on your binding thread you will need no knots,



to leave the point free, and fasten it right above the tinsel. Then, after having fastened a piece of red silk next to the hackle (the silk should be split, as described before), *carry your binding thread forward* to the end of the shank. This may be accomplished by giving it two or three turns around the body. Then wind your body with the silk floss, being careful to stop about one-eighth of an inch from the end of the shank



as when you drop the thread at the different stages it will stick and keep itself from unwinding or becoming loose.

Now we will try an ordinary brown hackle or palmer fly with a red silk body. Wrap on your snood as before explained, and carry your binding silk well down to the bend of the hook,

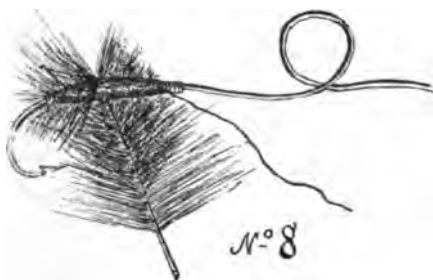
to allow room for the head. Here your work will have the appearance of cut No. 7.

Now seize the hackle by the stem and wind it spirally around the body, gradually working toward the head (see cut No. 8), at each turn pressing back the fibres with your left thumb and finger to prevent them from being caught

under the next turn. You will find that in this process your hackle will go on much easier and with less chance of the fibres becoming wrapped under than it did in winding of the hackle at the shoulder only in the previous hook. When you reach the end of the body give two or three turns of the hackle at this point, to allow a little fulness, then fasten the

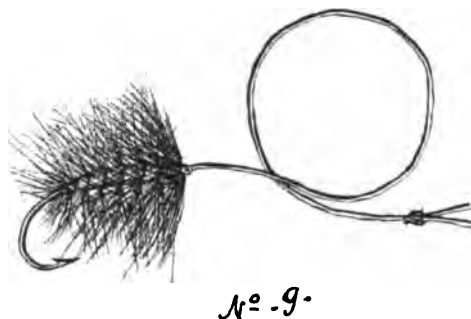
it to hold it tight, and poke the end of the snood through the loop four times to untwist it; then catch hold of the loose end and draw it tight. After this cut off the loose end close and give it a coat of shellac, and your palmer is complete.

It seems to be the custom—I have fallen into it with the rest—of always forming the head of

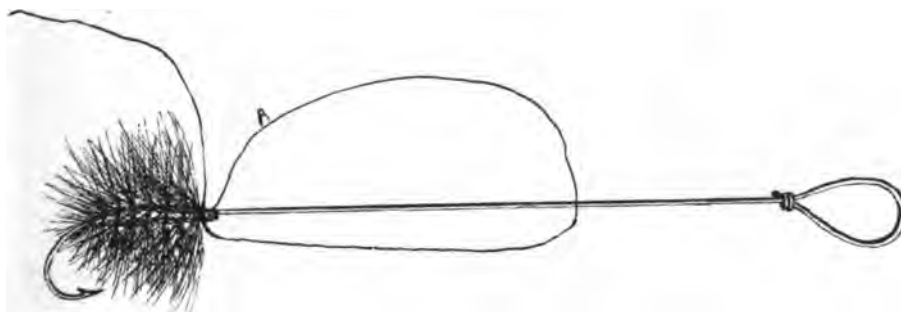


end with several turns of your binding silk, which must be wound even and nice to form the head. Your work will then look like cut No. 9.

In fastening the binding silk you may either use a half hitch or two or tie an invisible knot, which is much nicer. This is formed as follows: Take hold of the binding silk with your



palmer fly very small. Why this should be I cannot understand, as a palmer fly is meant to represent a caterpillar. There may be many of these insects that have small heads, but there are surely as many more with large ones. However, a good fly-dresser always makes the head small, probably because it is more diffi-



right hand about an inch and a half or two inches from the end of the hook, hold it toward the right, and with your left hand bring around the end over the head of the hook, thus forming a loop as in cut No. 10. Now catch your thread with your right hand at about the point marked A and give it four turns around the head of the hook. Place your left thumb upon

cult, and it would be better for you to learn how to do it.

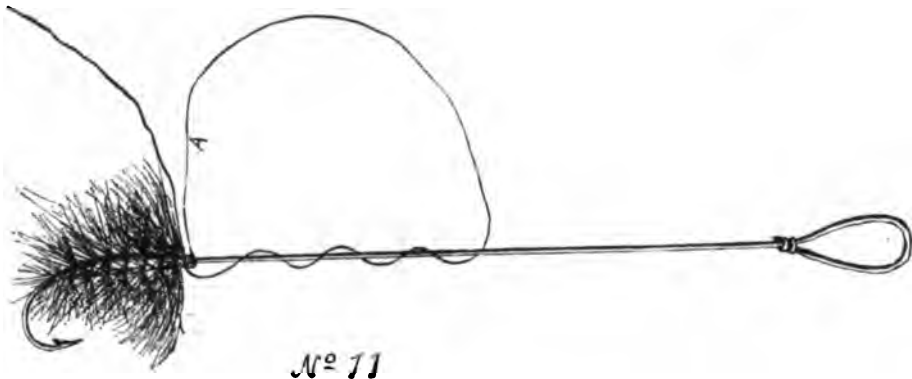
When you have learned to do what I have described up to this point, and practiced enough to be able to do it well, you may call yourself a fly-tyer, as the more fancy flies are but a slight variation. The very fancy and gaudy ones used for salmon and sea trout are

certainly very difficult to dress properly, but after you have had practice it will come to you.

As a specimen of the variation I will next take the Royal Coachman. Wrap your snood as usual, and give a slight show of gold tinsel

of the body with the peacock herl, put on the legs and tie back your wings, and the fly is made.

Take, for instance, the fly called the "Elizabeth," one of the most beautiful of the bass flies. It is described as follows:



at the butt. Then select three strands of peacock herl and fasten them the same as you did the hackle feather in tying a palmer; take the three together and wind them around the shank of the hook for a short distance, then catch the ends with two turns of the binding

Tag, gold floss; tail, feather from throat of Hastings pheasant; body, lower third red silk floss ribbed with gold tinsel, other two-thirds orange gold chenille; legs, crimson hackle; under wing, golden pheasant tippet; wing, barred wood duck.

Although the learner has not the feathers for this fly in his box—in fact few of the profes-



silk; with two turns more catch in some bright red floss, and holding the loose strands of herl along the shank, wind the silk over both them and the shank. After about three turns stop, fasten the floss, cut off the end and carry your binding silk up to the head, and it will appear as in cut No. 12. Now carry out the balance



sionals use the Hastings pheasant—it costs too much—I will give the mode of dressing it, that you may see how simple it is after having learned to tie an ordinary fly.

After the snood has been put on catch in a piece of tinsel, give it a couple of turns and fasten the loose end, but don't cut it off; carry it up the shank (as you did the herl in dressing

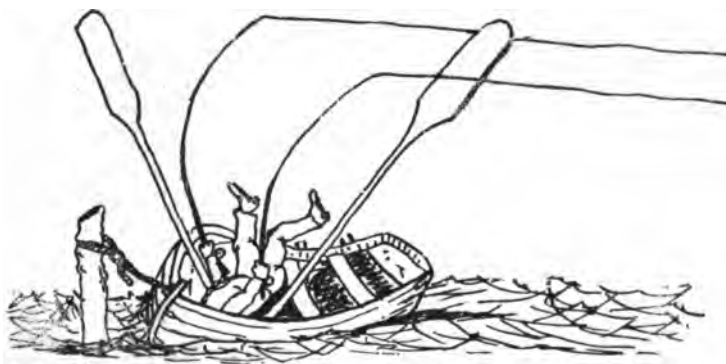
the body of the Royal Coachman), wind the gold silk tag over it, then lay it (the tinsel) back over the bend of the hook, so as to be out of your way; now put in the tail and catch in the end of the red floss for the lower joint of the body. When you have wound the red silk wind the tinsel over it spirally and cut off both. Now attach a piece of orange chenille and let it hang while you attach the wings. First lay on a barred wood duck feather, as you did in making the first hook (cut No. 3), and on *top* of it lay a golden pheasant tippet feather. When you have bound these on finish the winding of the chenille, put on the legs and tie back the wings. Cut No. 13 will give you a rough idea of the tag and body of this fly.

In dressing a fly with a mohair body you will follow the same process as in the first fly, except that you use mohair in place of silk floss, and after you have attached the end of the mohair you do *not* carry the binding silk up to

the head, but give it, together with the mohair, a slight twist between your thumb and finger to catch the two together. Then wind them both together to form the body. The strands of the mohair are short and would pull out if you attempted to wind them without being held together by the winding silk. This is sometimes done, however, by twisting the mohair a little and winding it very carefully. It is never done on a plain body, though, but only on bodies that are ribbed with tinsel or silk, for the latter serve to hold it in place. Occasionally a mohair-bodied fly is made without hackle, the mohair being picked out with the stiletto to represent legs.

In adding jungle cock, shoulders or horns (feelers) to the wing of a fly, you tie back the wing with one or two turns only of the binding silk and then add these extras, binding them on with a turn or two of the thread and finishing up with the knot as usual.

[TO BE CONTINUED.]





## INDIAN RIVER AND CONTIGUOUS LAKES.

By H. H. THOMPSON.

The third consecutive season finds the writer taking his outing in this section, with headquarters at the Laidlaw House, Rossie, N. Y., and he can heartily join Capt. "Jack" Laidlaw and family in hoping that it may not be his last. What has been said in the columns of *THE ANGLER*, at my previous visits, about the attractions of this vicinity for anglers, is confirmed by the experiences of myself and others this fall. This place is on Indian River, two miles above the head of Black Lake, into which it empties. As was predicted in my first screed from this locality, Black Lake is yearly drawing more attention from the sportsmen and campers of Southern New York. No previous summer has brought so many visitors for sport and the benefits to mental and bodily health of a few days' sojourn in a pure, invigorating air and pleasant surroundings.

Black Lake is twenty miles in length, whose outlet is a tributary of the Oswegatchie River, which flows into the St. Lawrence at Ogdensburgh. It is diversified with islands of various sizes and shapes and by numerous bays, and rumors are rife here of prospective purchases of some of these islands by well-known summer tourists camping out there for the first time this season. Its waters are well stocked with the favorite fishes courted by the anglers fond of trolling or still fishing. They include mascalonge, pickerel (*Lucius lucius*), pike-perch or wall-eyed pike, large-mouth black bass (locally known as "Oswego" bass), small-mouth black bass, rock bass, yellow perch, sunfish, catfish, bullheads, etc.

This lake, like Oneida Lake, used to be harried in season and out of season by men who knew no scruples as to times or methods of supplying city dealers who had quite as little regard for law or decency. Hundreds of tons of pike have been illegally taken from Indian River during their annual ascent of the stream for spawning purposes. The late Mr. Leonard, of Ogdensburgh, who was a fearless and efficient protector, accomplished a good deal of restrictive work, and his successor is following

suit, and should have the active coöperation of all good citizens.

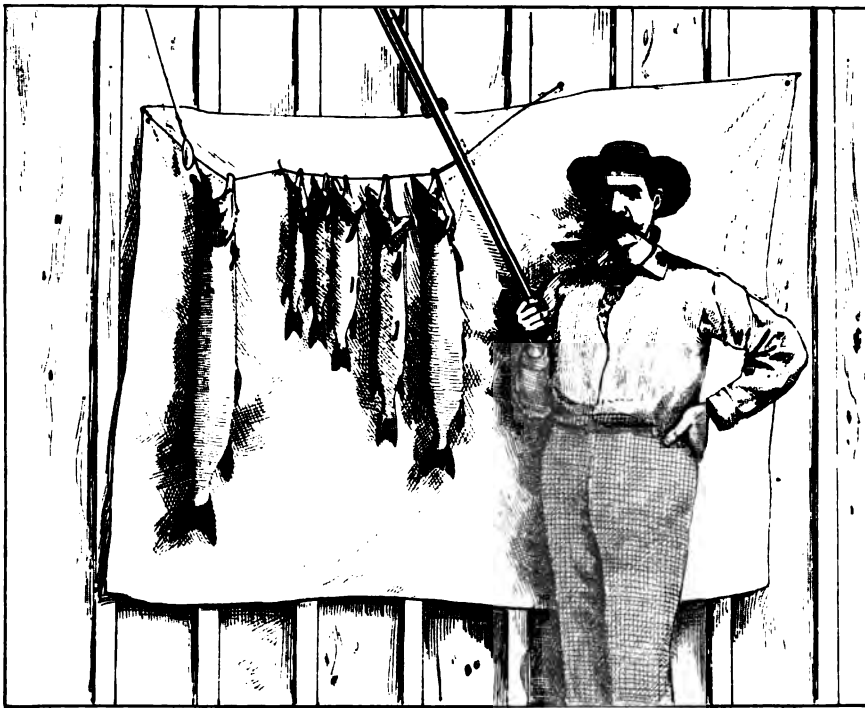
Black Lake is about thirteen hours only from New York by the New York Central either to Gouverneur on the Rome line, or to Hammond on the Utica line. The former place is sixteen and the latter six miles from Rossie, through which a stage runs daily from either place. Mr. Laidlaw will meet parties at Hammond upon notice by mail or wire. Since the New York Central became the lessee of the Rome, Watertown and Ogdensburgh system, one can procure in the city tickets, berths and checks through to destination on these Northern lines, which is one of the appreciated good results of the consolidation.

Pleasant and Grass are two other lakes within an hour's ride of the Laidlaw House, and each abounds with the black bass of both species. Four large-mouths were brought from the former to the hotel, Monday last, that weighed twelve pounds, and another of seven and a half pounds weight had been caught the Saturday previous. Small-mouths up to three pounds are frequently taken in these lakes. As to the latter sheet of water, I have to say, "Grass be blown!" for it was in the "blow" at my visit, and the worst case of "lake purging" I ever saw. Moses Harris, a thrifty, good-humored Irishman, who has cleared his hundred acres with his own hands, beginning thirty years ago, rowed us about the lake, and, to our own surprise and that of the farmers whom we met, our catch of bass and pickerel was quite a fair one. By the way, has it ever been scientifically settled what causes this "blow?" The supposition that it is thrown off at intervals during the summer from aquatic vegetation at the bottom is rather difficult of digestion, that theory seeming to require a more extensive and diffused vegetable bottom growth than is found to exist. Whatever the cause, the result is always great disappointment on the part of the expectant fisherman, sometimes expressed in words not found in the good book.

The Indian River runs through Rossie and empties into Black Lake about two miles below the village, some coves above which are famous for the large mascalonge and pickerel taken thence every season. The most successful fisherman in these waters is George A. Monk, who showed me at his house, one morning, a mascalonge and three pickerel weighing thirty-two pounds, caught the previous afternoon by himself and A. W. Kellogg, of Hartford, Conn.

eleven black bass that weighed twenty-seven pounds.

The fishing in Indian River for mascalonge and pickerel for twenty miles above Rossie to the falls at Theresa is good in the late fall. Mascalonge and Red lakes are reached from it through short outlets. My first black bass fishing, many years ago, was done in the former, the late Dr. James Davison, of Theresa, and myself taking a market basket full of large



CLUSTER OF INDIAN RIVER FRUIT.

He gave me a photo of six fish taken within two hours by himself and Kellogg, one afternoon a year ago, and the accompanying illustration is an exact reproduction. There were three mascalonge and three pickerel, largest of the former weighing fifteen pounds and of the latter seven. Monk caught fourteen mascalonge last season. July 8 of this year he took a mascalonge that weighed eighteen pounds, and on the 10th another of fourteen pounds weight. On July 20 he and Charles M. King caught

bass in a few minutes. There is on Red Lake a comfortable little public house, from the dock of which a sixteen-pound fish was caught the other day.

Some six or seven miles further east from Theresa on the railroad you strike Redwood at the head of Butterfield Lake, one of the best bass and pike-perch waters in the State. It outlets into Black Lake through Black Creek, a sluggish stream of considerable size, and a resort for black and other ducks. A newspaper

man who has been recently writing up Redwood in the *Antwerp Gazette*, avers that Charles Higgins and himself brought from the lake, as the result of two days' fishing, three hundred and twenty-six pounds of mascalonge, pickerel and bass. One of its tributaries is the outlet of Millsite Lake, which is the only one among all the lakes of this region containing lake trout (*Salvelinus namaycush*). It has some very deep, cold water, which must be supplied by bottom springs. Great numbers of a fine species of the Coregonus family, known as ciscoes, are taken in the late fall from this lake. Clear and Mud lakes are quite near Redwood, and not far away are Sixbury, Chrystal, Hyde and Lake of the Woods. In former years, when I lived at Theresa, my lines were cast with abundant success in all these waters, and, from current reports, it may be presumed that the fishing has not deteriorated.

The reader will perceive that probably there is no more enticing locality within a few hours

of New York City for sport with mascalonge, pickerel, black bass and wall-eyed pike. Boarding the night express on the Central, the angler can sleep till breakfast time at Lowville, Lewis County, and, arriving at 10 A. M. at Redwood, may at 11 A. M. be busy with the black bass and pike of Butterfield Lake, which frequently yields for a day's fishing a surprising catch of black bass.

Ruffed grouse are more plentiful about these lakes than in any other portion of the State of my acquaintance, and a huntsman with a trained cocker spaniel and not above shooting a treed partridge, can make a good bag in almost any direction from Rossie. An experienced duck hunter can have good sport in Black Lake and Black Creek. Added to these game attractions are the comforts of the Laidlaw House on a small farm in the outskirts of Rossie. The wide-awake, jolly proprietor fairly pesters one with his kind attentions, and his three daughters are excellent housekeepers.



## THE CLASSIFICATION OF FISHES.

BY WILLIAM C. HARRIS.

Ichthyologists are somewhat at variance in their methods of classification of fishes ; those of Europe, as a rule, place the lowest forms of fish life, such as the lancelet and lamprey, as terminals of their systems, but American ichthyologists generally reverse this order and give the simplest forms precedence of the higher. We will follow the latter method, asking our readers to bear in mind that this book is written for the angler and the layman, and no claim is made for it as being of interest or of special value to the scientist, except so far as personal observations, to be recorded as the work advances, may be of service in submitting new phases of the life history of special fishes.

About fourteen hundred species of fishes inhabit the streams, rivers and lakes of North America and the coast waters of the Atlantic and Pacific oceans north of the Mexican line, and this number is being constantly increased by the discovery of new species. These fishes are arranged by ichthyologists into four sub-classes or types, viz.:

First, the **LEPTOCARDII** (from two Greek words signifying "thin" and "heart"), representing the lowest forms of fish-like vertebrates, the lancelets, which are distinguished primarily

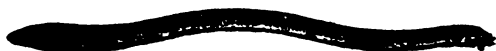


THE LANCELET.

by the absence of a heart and brain and the presence of the notochord, a cartilaginous rod or spinal chord, not enclosed in vertebræ. In America the lancelets are mostly found on the sand beaches south from the Chesapeake Bay.

Second, the **CYCLOSTOMI** (from two Greek words signifying "circle" and "mouth"). This sub-class is distinguished by an imperfectly developed skull ; heart present but simple in construction ; no paired fins ; eel-shaped, with purse-like gills. It includes the lampreys or "lamprey eels," which ascend rivers to spawn, and are valued as bait for black and striped bass in the waters of Pennsylvania and

Maryland. The lamprey attaches itself to a fish and feeds by scraping off the flesh with its rasp-like teeth. The hag fishes are also included in this class. They are eyeless, whit-



THE HAG FISH.

ish, worm-like creatures, which burrow into the body of fishes, eating out their insides.

Third, the **SELACHII**\* (from a Greek word signifying "shark")—the Selachians. They are distinguished by a cartilaginous skeleton ; skull without sutures ; gill-openings without gill-covers ; no air-bladder ; ovaries containing eggs few in number but large in size, which are impregnated and sometimes matured internally, and the males with reproductive organs developed to a higher degree than in the true fishes. This sub-class includes all the sharks, skates or rays, devil fishes, saw fishes, the chimæras or rat fishes of the Atlantic coast. We find therein two fishes only that are occasionally sought for by anglers, viz., the sawfish and devil fish, the latter an immense ray, both of which will receive attention in due course. This sub-class presents extremely diverse characteristics in form and habits. No one would imagine from the appearance of the common shark that it was closely affiliated to the devil fish, a ray with widely extended lateral flaps and fins, sometimes spreading twenty feet or more ; yet these two are anatomically allied through the ray-like shark called the monk or angel fish and the singular shark-like ray called the sawfish. Under this classification Günther places the sturgeons and other ganoids, including the gars, bowfins and duck-billed catfish. Jordan assigns them to the sub-class **Teleostei**.

Fourth, the **TELEOSTEI**, the bony or true

\* This sub-class was, a few years ago, known as the *Elassmobranchii*. Günther gives it the name of *Palaichthyes*, and Jordan places it in his latest publications under Class *E Pisces*, with the sub-class name *Selachii*.

fishes, which are by far the most numerous in species and numbers, including all that may be called angling fishes or those that are angled for with hook and line for sport or recreation. This sub-class is distinguished by a more or less bony skeleton with a skull united by sutures as in the higher animals; jaws and paired fins; heart and brain distinctly developed; air bladder usually present; gill-openings protected by a gill-cover; lay a large number of small eggs instead of a few large ones like the sharks and rays. The

true fishes were placed years ago (1820) by Cuvier into two divisions—soft-rayed and spiny-rayed, so called from the structure of their fins. This classification held good for many years, until the divisions were found to grade into each other to a confusing extent, compelling naturalists to use a more distinctive differentiation, viz.: the presence or absence of an air duct connecting the air bladder with the ali-

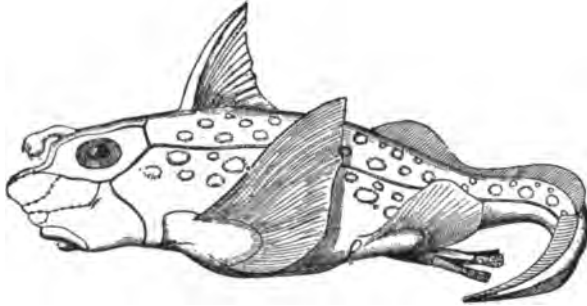
mentary canal. The soft-rayed fishes (*Physostomi*) have this slender duct developed, and it is absent in the spiny-rayed fishes (*Physoclysti*).

Thus it will be seen that, of the fishes sought by the angler, viz.: the tarpon, salmon, trout, pike, pickerel, catfishes, buffalo fish, red horse, carp, chub, lady or bony fish, moon-eye, mas-calonge, cisco, white fishes or stream herrings, grayling and others, have the air bladder connected by a duct with the æsophagus. Many

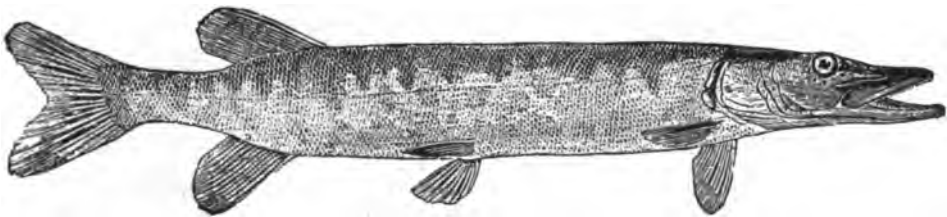
fishes, and among them some highly valued by the angler, are without the air duct, and even the air bladder is not always present. We name a few of them: Pike-perches, white or fresh water striped bass, porgie, bluefish, kingfish, channel bass or red drum, crevallé, crappies, rock bass, black bass, perches, sea bass, striped bass, drum, sun fishes, etc., etc. It will be noted that many of the sharp-spined fishes most highly esteemed as game fish are without the air duct communicating with the air bladder, which represents

the lungs of higher vertebrates, and in some fish forms is used as such when the supply of water fails.

It will be seen from the above brief summary that the angler finds his quarry almost exclusively in the fourth class, that of the true fishes, which are sub-divided into two series and four sub-classes; the latter into seventeen orders; these into one hundred and six families, which



THE CHIMÆRA.



THE PIKE—A TELEOSTI OR TRUE FISH.

are divided into four hundred and forty-two genera, the final sub-division of which results in about fourteen hundred species. The angler need not feel discouraged at the field of study before him, for of this large number of species comparatively few are worthy of his rod, and many of them are not accounted game fishes. Again, as we progress in our pleasant journey, we hope to be able to make plain the physical characteristics of each fish, so that the differentiations described as existing

between them will at once indicate the species under consideration when on the studio table or under the broader intelligences that ripen along the stream and on the open waters.\*

In this connection it is an interesting fact that the increase of species of fish caught or sought for by the angler within the last twenty-five years, shows a per centum of nearly four hundred. Thad. Norris, in his work, "The American Angler's Book," published in 1864, describes but fifty-six fishes as engaging the attention of the angler. Genio C. Scott, in his

later publication, "Fishing in American Waters," issued from the press in 1869, treats of only forty-one. In the present condition of the work we have before us about two hundred species selected as angling fishes, and we doubt not that the intelligent and enthusiastic anglers in every section of the country with whom we are in communion will largely increase the list before this work is brought to a close.

\* The anatomy and physiology of fishes will be described and illustrated in detail in the closing chapters of this work.



## A BASS FISHING EXPERIENCE ON THE NIAGARA RIVER.

By MOSES PRIMROSE.

It was a glorious day in mid-autumn, or, to be more exact, it was on Wednesday, October 17, 1888, at half past six in the morning, when Mr. Shem Shum, the eminent manufacturer of Shum's sheet-anchor shaving soap, of New York City, and the writer of this narrative stepped into a fourteen-foot skiff moored to the left bank of the Niagara River about two miles above the Falls. Great reports of the excellent black bass fishing on those reaches were rife among the craft, and we had resolved to enjoy one more good day's sport before the season closed.

The weather was perfect. A cloudless sky was overhead, and a light southerly breeze swept the river and kept in musical motion the variegated trophies of the dying summer that crowned its banks. All Nature smiled in unison with us, and Shem corked the bait bottle and put it away carefully in the bow locker.

"The next one will be on the first fish," I said, as I bent manfully to the oars.

About a hundred yards down stream there was a spot where a humming ripple and a long, trailing eddy marked the edge of a bar. Here we cast anchor, and, baiting our hooks, proceeded to fish for the noble bronze-backers.

An hour passed away and our string had been ornamented by twelve handsome fish, the largest nearly four pounds in weight. Shum was casting a minnow from the stern and I was drowning a helgramite at the bow. Luckily at that time I still retained my heavy tackle, and had on my reel a brown flax braided line, the strongest and heaviest I had ever seen used on fresh water.

As I watched my bait running down past the edge of the ripple, a dark shadow fell upon the boat, and I sung out to Shem :

"That must be a big cloud, old man. Are we going to have a shower?"

"Cloud?" he repeated after me, and then there came a strange tremor into his voice. "Great Scott! Moses, look over there!"

I looked, and between us and the mounting sun I saw the form of an enormous winged creature poised about one hundred feet above

the river. Its neck was long, slender, and covered with snow-white plumage, while the remainder of the body was a deep, dull, lustreless black. It had a long, straight bill, which was open and pointing upward like an enormous V. Its huge talons were clutching at the air in a manner that was horribly bloodthirsty and menacing, and, when it flapped its sable wings, which had a spread of at least seventy-five feet, the sound was louder than the slatting of a mainsail in a gale of wind.

I must confess that my heart beat a trifle quicker as I gazed on the fearful thing, but, controlling myself, I managed to address my companion in a steady voice with the inquiry: "What on earth can it be, Shum?" But the words and tones of the answer blanched my cheeks and sent the blood to my heart in a coursing tide that seemed to block the wheels of being for a space. My companion's trembling tongue had managed to frame this dreadful sentence :

"Heaven help us, Primrose! I believe yonder creature is a monsteropteros!"

We had both read in John Guggin's "Feathered Fowls of the New World" about this rare old bird, and I motioned Shem to bring me the volume from our library in the stern locker. Turning to page 347 I read aloud :

"'*Monsteropteros cormorantis*, or great American schooner bird.—This tremendous specimen of ornithological architecture was first discovered on the roof of a Milwaukee brewery in 1876. On being approached it flew rapidly away, and soon disappeared behind the clouds. It is supposed to be identical with the roc described by the eminent mariner and explorer, Mons. Sinbad, but nothing definite is known of its habits and formation, as in modern times it has only been observed once, and then by a person who unfortunately was under the influence of intoxicating beverages.'

"Well, this observation will be more fruitful," I said, throwing the book on the seat and putting on my gold spectacles. I had hardly got them focused on the feathered terror when a

flurry in the water just beyond the boat startled me, and a fine bass leaped into the sunlight. He had not attained the highest altitude of his vaulting dash before there was a rush resembling the scream of a first-class rocket, a splash that covered us with spray from head to foot and half swamped the boat, causing her to roll violently from side to side, and the monsteropteros rose majestically into the air, bearing the bass in his talons. At the same time the whirl of my reel told me that I had made a double capture of denizens of the water and the air.

I seized my rod and endeavored to put some pressure on the reel, but I might as well have tried to hinder the Chicago special under full headway, so I shouted to Shem to pull up the killick and let her tow. As he complied with my commands the monsteropteros let go of the bass. It dropped about a yard and hung there dangling on the line. I saw in a moment what had happened. The creature had struck at the bass when he was leaping with a slack line, and a loop had encircled the great bird's leg just above the claws. The dropping of the fish caught the leg in a bight of the line, one end of which was taut to a five-pound bass and the other securely fastened to the drum of my reel.

And now began a most exciting struggle. The monsteropteros did not rise directly into the air, but made for the opposite shore slowly and gracefully, sometimes descending to within fifty feet of our boat and sometimes rising nearly thrice that distance, always, however, in a sober and deliberate manner, seemingly totally unaware of the resistance to its flight offered by our light skiff as it was dragged across the smooth surface of the river. Within one hundred yards of the shore the great bird turned and made for the other bank, flying diagonally across and down the stream. This manoeuvre was repeated several times, while I sat in the bow with my hand on the reel, ready for any emergency.

My companion had been crouching at the stern, watching developments with horrified eyes and a pale, set face. Suddenly his hair and beard turned white as the driven snow, and, fairly flinging himself on the midship thwart, he seized the oars and began pulling like a madman.

"We are in the current!" he yelled. "Cut loose! cut loose!"

My first impulse was to obey his instructions, but something stayed my hand even as I had my knife raised over the line. We were being towed at the time straight across the river—if anything, a little up stream. Yet with all Shem's frantic efforts to aid the favorable direction, we were steadily and surely going down toward that dreadful chasm that yawns in mist and thunder less than a mile below. The reel line seemed my only hold on life. I would not cut it.

For a while Shum continued his useless toil, until at last, convinced of the futility of his efforts, he dropped the oars and began to wring his hands in hopeless terror.

"We are indeed in a desperate plight," I said in answer to his mute appeal. "If you can muster up a prayer, now is the time to test its efficacy."

"I have not prayed since I had the measles in '47," answered the trembling millionaire. "But if you will promise not to be critical, I will do the best I can."

"All right," I said. "I shall make every allowance."

He still hesitated.

"Primrose," he said timidly, "shall I pray on the bow deck, or do you consider the stern a more suitable place for an occasion of this kind? It is a stern necessity, you know."

"Yes, Shem," I said, "but we must bow to fate. Pray where you like," I added gently, for his terror touched me, "only please be as expeditious as possible, for the current is increasing in rapidity."

Shem Shum knelt on the stern deck and clasped his tiny hands together.

"Now I lay me down to sleep," he began, but he went no further, for I seized the junction of his suspenders and pulled him into the bottom of the skiff.

"What kind of a killy prayer is that for an emergency like this?" I cried indignantly. "Lie there and ballast the boat, while I direct my attention to saving both our lives."

The monsteropteros had suddenly altered its course. It was flying in a straight line toward the boat, and I noticed that the bass he had



seized hung much lower than when it first dropped from his clutch. Peering intently through my glasses, I soon discovered the cause.

From the leg of the great bird, just above its huge talons, a short, thick spur projected upward at an angle of forty-five degrees. In one of the creature's numerous swoops and gyrations the bass had swung over the taut end of the cord, which immediately dropped into the crotch formed by the spur and leg, and now, at every slackening of the line, the weight of the bass would carry that end down, until at the moment of my observation it hung within thirty or forty feet of the boat.

As soon as I fully understood the exact position my line had assumed, I was filled with a great joy, for I saw a chance of escaping from the terrible death that threatened us.

Shem had been cowering in the bottom of the skiff, muttering jumbled fragments of the Declaration of Independence, Warren's address at Bunker Hill and "Curfew Must not Toll Tonight," under the impression, I suppose, that he might accidentally strike something effective. He had just begun on the first stanza of "Beautiful Snow," when I stopped his orisons by ordering him to unbend the painter from the anchor and coil the rope neatly on the bow deck. There was nearly six hundred feet of new quarter-inch braided rope, strong enough to hold a medium-sized whale. As my companion busied himself in obeying my instructions I proceeded to carry out the plan I had formed.

My first intention was to get hold of the end of the line to which the bass was attached. As I said before, the weight of the fish would draw the line over the smooth surface of the spur when I unreeled quickly or when the monster flew toward the boat. If I could get the bird in a position directly over me, by loosing sufficient slack quickly I might drop the bass within reach of my hand or the oar.

To effect this I pulled all the remaining line off the drum of the reel and laid it in loose rings on the stern deck. With this running between the butt of the rod and my hand, the pressure of which acted as a brake, I humored the bird's erratic course, waiting until he should get into a favorable position.

I was so excited at this juncture that I could hardly stand up. My legs trembled, and the cold perspiration stood on my forehead in great beads. It was a game of life or death, with so many chances against me. The bass might swing over the line again. The monsteropteros might fly off and carry away everything, or the hook might tear out of the fish's jaws and let my line and my hopes drop together.

But, as you may know by the fact of my writing this story, fortune favored us. In the middle of one of his quartering stretches down the river the great creature turned and swam majestically through the ether directly toward me. With upraised head and straining eyes I watched his every motion. Nearer he comes, now almost above. He stops—no! he has only checked the full speed of his flight and floats slowly onward to poise himself overhead, as if reconnoitering the position of his captors. Hardly breathing, I let the loose line run, and the bass dropped heavily on Shum's right ear.

Heedless of his terror-stricken exclamations, I snatched up the end of the painter and secured it firmly to the reel end of the line. Then I cut off the reel, and, hoisting on the bass end, had the unspeakable pleasure of seeing the painter ascending to take the place of the smaller line.

Would it slip through the crotch? That was the great question that now agitated me. If it stuck I would be no better off than before. In fact, much worse, for I would lack the advantage the rod gave me in responding to the bird's dashes. Up, up, goes the slender cable on which will hang the lives of two human beings. Up and over the spur as easily as if running in a pulley, and now, down, down, steadily and surely, until the end of the painter was again in my hand.

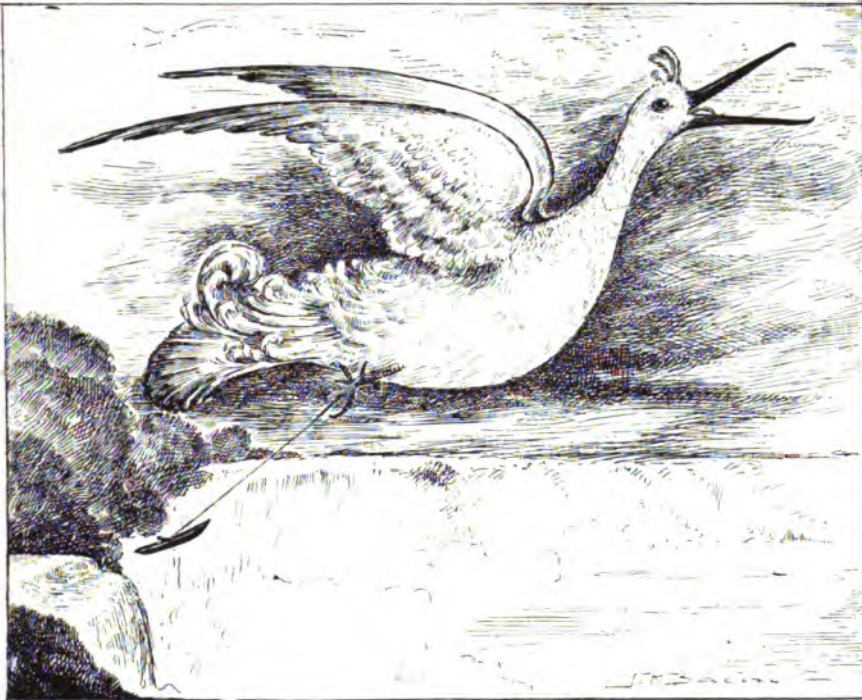
My loud hurrah startled Shem, and he looked up to see me standing proudly in the stern drawing the slack of our six hundred feet of painter over the spur, while the now thoroughly frightened bird flew wildly down the river. Then Shem gazed out over the water and fell fainting on the bait bottle.

We were in the rapids above the Falls. The rush and roar of the tumultuous waters almost drowned the thunderous diapason that rose

from the cataract, scarce a quarter of a mile away. Great hills of foam lifted our frail craft on their heads and tossed her forward, only to rush at her again from behind and strive to sweep her to destruction. Then down into a sickening hollow we would slide until there was nothing visible but the curling breakers rising like snow banks around us. But I kept my aerial steed well in hand, and a timely pull on the line raised the bow of our boat to meet many a wave that dashed menacingly at our

"Lighten the boat!" I roared, but my voice was drowned in the awful din. "Throw out everything!" I shouted again, stooping almost to his ear. He obeyed me with great difficulty, owing to the frightful motion of the skiff, but at last anchor, oars, library, spare tackle, everything was over except a corked, wicker-covered demijohn. I reminded him sharply of his negligence.

"Mr. Shum," I said, "you have overlooked the bait bottle."



quarter. One of them washed over the side, however, and roused Shem, who, lifting his head and gazing appealingly at me, handed me a small piece of paper on which he had penciled with a faltering hand the following promissory note:

NIAGARA RAPIDS, October 17, 1888.

I solemnly promise that, if my life is spared on this occasion, I will reduce the price of my sheet-anchor shaving soap to ten cents per cake.

Shem Shum.

With a bitter smile I cast the ridiculous document to the wind.

"Oh! Moses," he cried imploringly, "not—not the bait bottle?"

"Yes," I answered sternly. "Our lives depend upon lightening the craft, so over with it, or, by all that's holy, this ship will carry only one passenger."

"I'll do it, I'll do it," he said, "but first let me see if it's empty."

Kneeling down in the boat, he threw his head back and gazed long and earnestly over the

bottom of the uncorked demijohn. Then he took it down.

"Yes, it is empty," he said with a sigh, and tossed it into the smother.

And now the crisis was near. We were approaching the precipice with terrible speed. Along the shore we could see hundreds of men jumping up and down, waving their hats and arms with wild gestures, while their female companions, almost frenzied by the terror of the scene, snatched themselves bald-headed and tore around in uncontrollable excitement. Overhead the flapping wings of the huge bird beat the air, raising a gale that blew the tops off the breakers, while it uttered screams resembling the blowing of a two-hundred barreled locomotive whistle. Under this terrible tumult even my iron nerves gave way.

But what is that ahead—that smooth, oily slope, rounding off into the mist? Needless it was to ask the question, for too well I knew it was the brink of the dreadful Falls. In a moment my nerves resumed their firm, piano-string tension. With a lightning-like movement I passed the loose end of the painter through the stern ring and made it fast. Then, breathing a hasty but suitable prayer, I threw myself into the bottom of the skiff, which formed the base of an enormous triangle, with the line for sides and the great spur for an apex, as we rushed over that glassy side into the vapor and thunder of the abyss.

For a moment the boat swung so violently that we clutched the thwarts above us, in fear lest we should be thrown out. But the motion

soon ceased, and, filled with peace and thankfulness, we floated out from the clouds and rainbows of the great cataract into the clear sunshine.

The monsteropteros continued his slow flight down the river until, far beyond the lower rapids, he descended close to a field of withered cornstalks. I had prepared the line, and, when within fifty feet of the ground, took a hitch on a thwart and lowered away through the stern ring. As soon as we reached the earth I cast loose. The rope ran rapidly over the smooth surface of the spur, and the end, snapping like a great whip lash, picked a pin feather from the wing of the giant bird. The feather fluttered slowly through the air and fell at our feet. Uttering a scream of pain and anger, the monsteropteros rushed forward with great speed and was soon lost to sight.

My friend took home the feather. Its plume forms a magnificent ornament for his dining room, while the quill, mounted in silver, makes the handsomest fly-rod case I ever saw.

Shum is now an altered man. He has reduced the price of his shaving soap and devoted himself to serious subjects, having learned to eat hot cross buns and pray fluently in six different languages. At first the great peril so affected him that he determined to enter a Hoboken monastery, but the advice and entreaties of his friends induced him to compromise with his intentions by hiring a room in the Bible House, where he spends the greater portion of his waking hours in silent meditation.



## BRITISH BOATMEN.

By W. CLARK RUSSELL.

Sailors call boatmen "longshoremen"—that is, men who live along the shore and do their business in shallow waters. They all come under the heading of watermen in Jack's mind, and when a sailor wants to insult another he calls him a longshoreman. This is not very fair to watermen or boatmen. It is true they are not seamen—they know very little about ships—but they see a good deal of weather. Many of them go fishing in winter; they are the people who man the lifeboats, and they risk their lives in a dozen ways very much more often than Jack does, his. They are a separate, distinct class in our maritime population. They are a cross between landsmen and sailors. In appearance, indeed, some of them are infinitely more nautical than the most nautical sailor afloat. I have seen them with rings in their ears, crosses and bracelets tattooed on their hands and wrists, a profusion of well-oiled locks hanging over their mahogany cheeks, dressed in sou'westers, voluminous Jerseys and loose trousers, and looking as much like hardy and seasoned mariners as it is possible for tarpaulins and India ink and gunpowder to make men. But no sailor who saw them could be deceived. He would know them to be longshoremen; something in their lounge, something in their gait, something in the way they hold their arms and carry their heads, would convict them. A sailor would know that those fellows were not used to dancing decks, nor to hanging on with their eyelids, nor to that routine of ship discipline which ends in rounding men's backs and arching their legs like an erect frog's. All their nautical experience would go for nothing the instant they bestirred themselves.

An ocean sailor, a real salt water man, is as active as a cat. His spring is inimitable—he tumbles about with astonishing alertness. The boatman, on the other hand, is heavy and slow. He sprawls and splashes, he is ponderous and over exerts himself. This is no doubt the result of his lounging life. No boatman will ever stand upright if there is anything within the

circumference of the horizon which he can lean against. A group of them gathered round a stone post presents a pleasing picture. They hang in various postures, leaning like lay figures without any bottom to stand upon, always contriving, however, to keep their backs turned upon one another, for in no other attitude do they seem able freely to converse. It is difficult to look at a lounging boatman without fearing that he must have been desperately hard at work for hours, and that he is now suffering from severe exhaustion. I remember observing a boatman lounging a whole morning over a post, contorting his figure against it and around it and over it, until, apparently in despair of ever being able to fit his body to it to his satisfaction, he went over to an anchor and writhed about the fluke of it until it fell dark, when he gave up the labor of lounging for the day, and withdrew to an alehouse to recruit his shattered strength.

In the summer time the British boatman is slightly active. He lounges, indeed, but he lounges with the air of a man who is willing to be courted into agility. The seaside breeze is full of his cry of "Bort, sir, bort! bootiful day for a row, sir. Try a little fishin', sir? Pouting as long as your arm a-swimmin' about outside, sir: likewise coddlin, sir, and plaice as it is a weariness to haul aboard." I remember being seduced by one of these men into "trying" an hour's fishing. I knew it was rather early for fish worth catching to be about, and, besides, the water was like glass—nothing stirring it but the long-drawn folds of the delicate ground-swell, and a vague horizon that seemed to revolve like a horizontal corkscrew in the quivering haze of heat. The man who wanted me to go with him had a neck that inclined forward and gave his head an eager posture; his blanket trousers came as high as his shoulder blades, and the perspiration trickled down his nose from under his cap as he stood soliciting me.

"I don't believe there are any fish to be caught," said I.

"Beg your parding," he exclaimed, looking at me with dull astonishment; "would you be pleased to repeat that remark, sir?"

I did as he asked me.

"No fish to be caught!" he cried. "P'raps pouting isn't fish; p'raps codlin as long as that—ay, and as that—isn't fish? P'raps lemon soles, as eat with more relish nor turbot, with backs all meat, and fetchin' two shillings apiece on the barrers, isn't fish? Mind, I won't contradict you and say they *is* fish; but when I saw a gent come ashore two hours ago, followed by Bill Burton and old Dan'l a carrying of his catchings, and stooping—strong men as they be—under the weight of 'em, it seemed to me that if wot they'd got in their hands warn't fish, then fish must ha' changed their natures in a wiolet hurry."

"It will be very hot work sitting in an open boat," said I.

"Hot? Well, an' a good job, too," he answered. "It's the heat as makes the fish hungry. It's contrairy with fish with what it is with men. Hot weather makes men thirsty, but it gives the fish a happeite. That's the difference 'tween livin' in air and livin' in water."

"Very well," said I; "get the bait and lines and bring your boat round."

He bundled off with a very grave face, and, after a long and violent struggle with his boat, during which he cast off the painter, shipped his rowlocks, adjusted a red-hot cushion in the stern-sheets and threw out his oars with the ponderous energy peculiar to boatmen, he brought his boat alongside and I got into her. He proved, as I had suspected, a talkative man, and favored me with his views on a great number of subjects. I believe he talked with the idea of distracting my mind from contemplation of the mission I had embarked on, and to prevent me from complaining of the fierce heat of the sun. After he had rowed a certain distance he began to peer about him with great ostentation of anxiety, pausing on his oars and dropping his head on one side while he viewed the land, then pulling another stroke or two and pausing again. I asked if anything was the matter with him.

"The right hole," he answered, "where all

the good fish come together is just hereabouts and I'm waiting to get the bearings. I'm the only boatman belonging to the place as knows the exact spot, which obliges me to be a bit sly, for the watermen are a trifle jealous of my luck, and they're not over particular in their use o' spy glasses."

I found him very slow in getting the bearings of the "exact spot." Either he overshot it or was too far to the westward of it, or the trickle of tide dropped him astern of it. He would look at me under his eyelids sometimes, just to see if I was not growing more hopeful of obtaining sport in the face of his accurate and laborious measures to come at it. At last he made up his mind that he was exactly over the wonderful hole where all the good fish assembled, on which he tossed his oars in and tumbled a little anchor over the bows.

We were about two miles distant from the shore. The oil-smooth water was an exquisite vehicle of sound, and the cries from the land, the tinkling of bells, the rattle of wheels, floated past my ears with beautiful clearness and in miniature notes, as though the little kingdom of Lilliput was under our bows, and I was listening to the echoes from its tiny metropolis. The heat thickened the atmosphere, and the vessels on the horizon loomed large and vaguely; the water was a delicate light green, dotted here and there with spots of color in the shape of red and white and black buoys, gently leaning one way with the tide. It was pleasant to listen to the lip-lipping of the current tenderly caressing the sides of the boat, that slowly rose and slowly fell on the breathing bosom of the water. But for the heat I might have pardoned my boatman for courting me into this trip. The swaying of the boat was lulling, the hazy distances were dreamy and the light of them soft, and the noontide stillness of the air was heightened rather than disturbed by the fine, small sounds which came from the shining land. But neither the voice, the appearance nor the movements of the boatman were friendly to poetic musings. It was not easy to watch his face and survey the posture of his immense blanket trousers, as he sat clearing the fishing lines, and think of the "beautiful." We got our lines overboard, and I waited with.

some expectation for those "bites" which the boatman assured me would quickly come "as thick as mud in a wine glass." I noticed that he fished with a very business-like air, with a slight look of wonder, as if rather surprised at not immediately hooking a large fish. After hanging over the edge of the boat for above half an hour, during which time I lost my bait on an average of once every five minutes, either through the tide or through crabs, I got a powerful bite, and dragged up, with a beating heart, a great mass of sea weed! This was very mortifying. But now the boatman had a bite. It was apparently more powerful than mine had been. He struggled with the line, and I might have supposed he had caught a large cod. "Lord, how he pulls!" he muttered, and then, when I was looking eagerly, he shouted, "Gone, and be blowed to him!" It was an excellent bit of acting. He looked dreadfully annoyed and disappointed. He pulled up the hook, examined it narrowly, said "it looked all right to him," and that "it was werry odd, though true, as a scientific gent, a nat'ral philosopher, had told him that some fish has the art of getting off a hook arter they're on it; it 'ud be interesting to know how they did it; if he had the larning he'd write to the papers and recommend the aqueerium folks to look into the matter." He was more fortunate than I, for he had several strong and struggling bites after that, whereas the time went by without bringing me one. His fish always managed to get off, somehow or other, just before they reached the surface. I own that he acted his part so cleverly that several times I was deceived, and caught myself bobbing over the gunwale with renewed hope, and wondering why all the fish should collect on *his* side of the boat. But at last the comedy grew wearisome, and, what was more, the sun threatened in a short time to make it unbearable. I pulled up my line and flung it into the boat, and told him to get his anchor.

"Surely ye ain't going to give up, sir?" he exclaimed. "Why, the fish han't had time yet to smell the bait."

"They must have lost the sense of smell," said I, "for we have been here an hour and a half."

"Look here, sir," said he, in a low voice, "I wouldn't tell you before, as it's a place I keep special for two or three gents as pays me five shillings an hour for the privilege. But as you've had no luck I don't mind telling you. You see that buoy? Well, about ten fathoms to the right o' that is a bit of ground thick with fish—thick? ay, thick ain't the word. There's no word to touch the truth. I'll row you over there." And he began to bustle about, but I had had enough.

"Up with your anchor," said I, "and put me ashore."

He saw I was in earnest, but he had not done with me yet. There was a good twenty minutes to be wasted in winding up the lines, getting in the anchor, swabbing the bottom of the boat, wiping his forehead, looking around the sea, getting his oars out and moistening his hands. I suppose it was the surprise he labored under, the astonishment at our want of luck and at my want of perseverance, that made him so slow. He worked like a man oppressed with amazement, and, true actor as he was, he made simulated emotion profitable to the last, for his astonishment kept me at sea three-quarters of an hour after I had told him to put me ashore.

But it is impossible to begrudge a boatman his earnings. His winter is very nearly nine months long, and I have never yet been able to ascertain how he lives during the dreary months when his town is empty and the "stormy winds do blow." If there is a life boat belonging to his town he may get a pound or two now and again by helping to man it; he may also make a little money by hovelling. But the greater proportion of boatmen don't man the life boats and don't hovel; and that nobody should ever be able to find out how they live in the winter is not very surprising, seeing that they have no ideas whatever on the subject themselves. And yet it must be admitted that philanthropy may sometimes be wasted on boatmen. I once asked a boatman, on a cold, tempestuous November day, if anything was going forward to enable him to earn a few shillings.

"Anything going forward?" he answered. "Yes, meat's going forward, rent's going for-

ward, coal's going forward—everything's going forward; and they're very nearly out o' sight already."

"Is there no hovelling to be done?" I asked.

"Hovelling?" (these fellows always repeat your question.) "No, there's no hovelling; it's all steam. Hovelling's dead and gone."

"How on earth do you live?" I said.

"Live?" he echoed hysterically. "Who says I live? I don't live, master. If any man should tell 'ee that Bob Morgan lives, you just turn and call him a liar."

Next day was fine. I saw this same man lounging against a stone post, and went up to him.

"Here, Morgan," said I, "get your boat round; I'll go for a row with you."

He looked at me lazily, preserving his lounging attitude. "'Tain't worth my while to go for a row," he answered. "Pretty thing if a ship should go ashore when I was out rowing! Why, I'd lose my salvage, and all for a couple o' bob!"

"But do you mean to say that you'll throw

away a couple of shillings on the chance of a vessel going ashore?" I asked.

"Ay," he answered; "times are too hard to risk losin a chance, master?"

The stone post was too comfortable for that man to quit. He would rather keep leaning against it and grumbling at life, and wishing an earthquake would come and swallow everybody up, than earn two shillings by working. Yet one cannot but think kindly of the boatman. His quaint figure, his leathern face, his wonderful breeches, mix themselves up in our pleasant memories. To think of him is to recall the bright summer day, the sparkling of surf upon the golden sand, the blue sea, the clear and singing wind, the leaning, gleaming yacht, the brown smack, the mellow creaking of oars in the rowlocks, and the buzzing of foam at the wherry's stem. He is an amusing man, a queer talker—a man, to use Leigh Hunt's phrase, of a uniformity full of variety. In many respects boatmen are real studies.—*From a Foreign Exchange.*



## HOW TO FISH FOR TARPON.\*

BY THE LATE COL. F. S. PINCKNEY.

Thus far the only bait used for tarpon is mullet. Better bait there may be, but it has not yet been discovered, so far as I know. The method of cutting the mullet into bait and the ways of fixing it upon the hook are various, and no one fashion has yet been adopted as the perfect outcome of long experience. The two sorts of bait now in use are the "long bait" and the "chunk." The former consists of the whole side of a mullet cut free from the backbone, scored lengthwise, and placed upon the hook by passing the metal and also the lower portion of the snood once through the tail end and then twice through the fleshy parts, reversed so as to leave the point of the hook embedded in and concealed by the flesh nearly at the other end. With fine copper wire the tail, or upper end of the bait, is bound fast to the snood some inches above the whippings of the hook itself. The "chunk" bait is cut crosswise from the entire mullet, and the hook, being forced down through the fleshy part, is brought out through the skin in such position as to be capable of a sharp "attack" whenever called upon by the angler at the other end of the rod. I have seen both these methods tried in the same boat and on the same day by Mr. Wood, with no results showing superiority.

In a general way casting for tarpon closely resembles casting for striped bass. The cast is made "from the reel" without click or drag on, the danger of "overrunning" the line on the reel being met by a delicate manipulation of the reel leather or the thumb stalls, of which latter there should be several in the boat, as it is common to use one on each thumb, and also common to drop them overboard or have holes burned in them by the friction of the line. Two differences may, however, be noted: the bait is much heavier and the snood much longer than those used in bass fishing. The snood (which I have already stated is generally from two and a half to three feet long) is too large to render

through the rod guides, and hence the bait when ready for the cast, dangles just that distance below the tip of the rod. Not only does this render a long cast more difficult, but it puts the tip of the rod to a far severer test when the caster, with full strength and a wide-armed swing, brings the whole weight of bait, hook and snood (or chain) to bear upon it suddenly. On the other hand, the distance absolutely required for tarpon is less than in heavy bass casting, for the chief object is simply to get the bait far enough from the boat so that the fish may not see or hear (sense) anything to disturb him, and further, that, when struck, his first furious breaks out of the water may not be made dangerously near the boat.

As soon as the cast has been satisfactorily made the rod is usually placed across the boat's thwarts, or in some other position so convenient to the angler that he can quickly grasp it properly if necessary. This done, the line already cast is loosely held in one hand, while with the other some twenty-five or thirty feet more are pulled from the reel and lightly coiled on the deck of the boat (if it have one) or on a seat or board that is free from obstructions. Still holding the line as before, the slack line thus obtained should be "overhauled"—that is, so re-coiled that it will run off freest *toward the hook* instead of toward the reel. It is of the greatest importance that this coil should be kept constantly free from any contact with anything that might obstruct its free paying out in case a tarpon should take the bait or make "draw," as it is called. After this has been done and the angler has glanced about him to see that all his implements are in their proper places and the decks duly "cleared for action," he will, still holding the line loosely as before in his hand, seat himself comfortably and, after putting on and thoroughly wetting his thumb stalls, will light his pipe and prepare himself for a period of patient waiting.

This condition of inactivity may last four minutes and it may last all day, and no angler who does not feel himself equal to contem-

\* An excerpt from "The Tarpon or Silver King," published by the Anglers' Publishing Company, New York.



plating and even experiencing the latter contingency with perfectly unruffled front and a quite serene state of mind, had far better stay at home. As I left the angler with the line still held in his hand, it is proper to say that he may continue to hold it or not, as he likes or as circumstances suggest. If there happens to be a strongish tide running he will find it safest to do so, but, if not, he may let it lie upon the gunwale of the boat, placing upon it some very light object to prevent its paying out of its own weight, yet not heavy enough to resist any attempt to remove the bait from the bottom.

As the word "chum" has been used, it is proper to explain that tarpon are not "chummed" for in the sense in which we use that word when speaking of bluefishing, for instance. That is to say, there is no question of producing a "slick" upon the tideway, up which the fish are presumed to follow till they reach the bait. This cannot be done because, in the winter at least, the mullet used for bait are not fat and oily enough to make a "slick," and it may be doubted if it would be of much service in any event, since the tarpon are bottom feeders mainly, and when they come, at rare intervals, to the surface, are probably net seeking food there. All the chumming that is done, therefore, is to cut up into moderately small bits the waste portions of the mullets (backbone, etc.) left after cutting out the good baits, and throwing these scraps as far as possible from the boat in the general direction from which the fish are thought likely to approach. It is true that some anglers take with them *extra* mullet expressly for this purpose, but it is not yet demonstrated that this is of great utility except on particular occasions.

It must not be assumed that during all this long period of enforced waiting the angler is always permitted to possess his soul in patience, with no let or hindrance. On the contrary, he is often beset by annoyances. It often happens that, having cast his bait at random, it falls near the hole home of a "moray," which is an eel-like creature of great pertinacity and voraciousness, and consisting chiefly of prodigious jaws and a furious wriggle. When once this fellow has taken hold of your bait, no matter how often you wrest it from him, he will never

"let up" till he has dragged it to the mouth of his hole, wriggled his own body into the hole, and then set his dog-like teeth into his prize with a determination worthy of a better cause. When it comes to this point Mr. Wood says the only way is to sway back on your rod with a long, strong, steady pull till "you make the back of his neck ache so that he's sick at his stomach—then maybe he'll let go."

If by chance you escape the "moray" you are not unlikely to plant your bait near the lurking place of a family of "groupers," that will keep you busy enough either getting away from them or boating them if they succeed, as they often do, in getting themselves hooked. It is at any moment likely that a twenty-and-odd pound channel bass will give you a few moments' rather lively play, even on the big tackle you are using, and it is always a toss up whether or no, when your coiled line runs out with startling rapidity and you grasp your rod with feverish haste, you will find yourself at odds with a tarpon or a six-foot-long shark, with which you try conclusions, generally resulting in the loss of a dollar's worth or more of hook, snood and line, even if you are fortunate enough not to smash a rod in the encounter. And just here is a point well worth noting, viz.: only long experience will enable one to distinguish between the "draw" of a tarpon and the fooling of these other creatures. Now it is a well-recognized principle that, if a tarpon is resisted by any strain upon the line while he is *mouthing* the bait, he is a lost fish, so that the angler is kept in constant dread of losing his fair fish by a too prompt effort to avoid the foul. I know of one instance where an angler, having been four times fooled into letting a shark swallow his hook, at the fifth draw said, "Oh! no you don't this time!" (giving a vigorous jerk to his line) and was rewarded by seeing a splendid tarpon go into the air and shake hook and bait out of his mouth with a triumphant sneer. [I don't take much stock in the "sneer," but in other particulars it is a true bill.]

I have said that the tarpon "stands on his head to feed," and this from the evidence of those who have actually seen the process, and it will be recognized as quite natural by many

who have watched other and less notable bottom feeders gathering their food. Exactly on what he feeds when upon the oyster beds (or near them), where he is generally captured during the winter season, is much less clear to those who know his habits best. The bottom in these places is covered mainly with a greenish sea moss or weed, and it is believed some minute animal life contained therein attracts his appetite. It is pretty certain that he is not at this time in search of mullet either alive or dead, though these seem to be his staple diet. As far as can be judged, his taking of the dead mullet bait is due to the fact that, in "nosing" along the bottom in search of whatever it may be, he casually comes upon a fresh bit of fish, the skin of which is shiny and attractive and the flesh of which is in good condition and toothsome looking. Whether or no he is instinctively suspicious of its presence there in such good condition cannot be said, but his observed manipulation of it might well suggest this idea. He first "noses" it or lifts it off the bottom; then, if not disturbed, he lets it drop into his huge jaws and swims away with it a few quick strokes. Should any strain be put upon the line at this point he will at once eject the bait and touch it no more. If, however, it seems all right, he not infrequently drops it, and, after swimming away some little distance, comes back again and goes through the same process, generally ending this time, if not molested, by taking the entire "chunk" down into his capacious gullet.

At this exact moment and never before the angler should "strike," sending the hook home as vigorously as possible.

This may all seem fanciful, but it is the record of actual observation and coincides most nearly with the experiences of the angler at "the other end of the string."

When the angler, after hours perhaps of patient waiting and watching, sees his coil run out swiftly and evenly with a firm onward sweep, the bait having evidently been fairly "lifted" and quite clear of the bottom, he experiences a peculiar thrill and a momentary sensation of creepiness somewhere in the vicinity of the base of the spine. The next instant, if he be a man of nerve and a thorough sports-

man, this gives place to a preternatural coolness of demeanor. He resists the temptation to grab the rod and tangle himself all up in the loops of his coil. He takes it up calmly, sees everything all clear and coolly soaks his thumbstalls over the boat's side. There is a resonant ring in his voice, but no tremor of excitement, as he turns to his boatman and says, "Johnny, stand by your anchor. I have a 'draw.' Tarpon, I think—shark, I'm afraid. Coil's all out—look sharp, Johnny! He's running it from the reel now. Hold hard, there! He's off or dropped it; can't tell which." Then there is a pause, brief but full of that deliciously awful suspense known only to the pursuers of big game, and, I am sorry to say, to gamblers. "There he is again, Johnny. He's spinning it out now—and—I've *struck*—but Lord! boy, look at him!" Yes, indeed, look at him! Look at the grandest sight that can fire an angler's eye; look at that magnificent *Megalops*, over six feet long, with gleaming sides of hammered silver, shoot up into the bright sunshine till a full foot of daylight shows 'twixt the tip of his tail and the seething foam of his wake! Look at him as he, dog-like, shakes his mail-clad head to void the hook, and then slides back again into the water, only to gather momentum for yet more furious leaps and plunges, and mad throes of desperate combat! Look at him as he makes the waters surge and boil till they glitter and sparkle like his own unrivalled panoply of resplendent armor in vain efforts to escape from that trifle of thread which stretches and vibrates perilously between his huge jaws and the yielding tip of your rod a hundred and fifty feet away!

Your tarpon is fairly hooked now, and you must settle down to business—to an hour or more of hard work, constant tension on every nerve, and the exercise of all the coolness, strength, judgment and skill of which you are master. Long before this, of course, your boatman has got his anchor inboard, has taken to his oars and is devoting himself to the keeping of the stern of the boat toward the fish in his devious wanderings. [I am aware that some experienced tarpon anglers kill their fish with the boat at anchor, but I am not writing for the instruction of those to whose instructions

I am indebted for the little I know about this sport, and am assuming that this is the first fish of a tyro.] As a rule, I think, when a tarpon finds he is fairly hooked in the gullet, and realizes, therefore, that he cannot shake the hook out of his mouth, he makes a tremendous and determined run for liberty. It is in this first grand rush, while the fish is still in possession of his full strength and vigor and is

against the rush of the fish, with the foolish notion that you can "snub" him by sheer strength of resistance, either something will give way or your prey will run off so much of your line that you will practically lose control of him. What he should do is to let the fish *tow the boat*, and what you should do is to *hold your rod up straight* and fight for every inch of line you have on your reel.



A 132-POUND CATCH.\*

unworn by combat, that they most often escape through misjudged management or defective tackle. During this crucial period much will depend upon the skill and judgment of your boatman or the power you have of controlling his actions, while attending strictly as well to your own rather complicated duties. If, for instance, your man insists upon rowing dead

There is probably no more important precept to be adhered to by the tarpon angler than the simple one, "*hold your rod up straight.*" The *rationale* of this is simple enough. A tarpon rod is a pretty stiff sort of an affair at the best, and considerable strain upon the line is required to bend it at all, hence all its elasticity must be utilized in equalizing the resistance in order to prevent the parting of the line by a sudden jerk. When the line comes to the rod at about a right angle to its plane of per-

\* We are indebted for this illustration to Messrs. Charles Scribner's Sons, publishers of *Scribner's Magazine*.

pendicular direction, the fullest advantage can be taken of the spring of the rod, and, on the other hand, the more nearly the direction of the rod approaches to the direction of the line the more nearly does the strain upon the line approach that produced by a "straight-away pull," which everybody knows none of these lines could withstand for an instant. The matter of "form" in handling this fish is something which each angler is likely to develop for himself, but any "form" which does not involve holding the rod close to the body, and as nearly perpendicular as possible during the fish's first desperate runs and surges, is certainly "bad form," and very unlikely to be successful. There are times, of course, when, in spite of all the resistance a strong man can offer, the rod will bend forward somewhat, but it is regarded as far better, just at the right moment, to let slip a few feet of line from the reel, thus easing the pressure, than to let your fish get your rod down, for once you have dropped your tip to anything but a slack line or a leap, there is great difficulty in getting it back into position again.

In tarpon fishing you need have no fear of "holding too hard." The chances are that with one, or even both thumb stalls, pressed with all your force against the line on the reel spindle, you will not be able at times to prevent it from running out with fearful velocity. I have seen a hole actually burned quite through one of Mr. Wood's thumb stalls, *while it was sopping wet*, by the friction of the line upon it. There was distinct odor of burning cotton and a puff of smoke as witnesses to the fact. Now, it is clear that, to put such a strain upon your tackle as this with any degree of confidence, you must have unbounded faith in the soundness of every inch of it from butt to barb, and above all you must, while doing it, *hold your rod up straight* in order to equalize the strain.

It is not necessary here, even were I competent, to go into the minuter details of playing the fish. Hardly any two are precisely alike

in the demands they make upon your skill, and no two anglers agree exactly in their methods. Very few, if any, begin their careers as rodsters by tarpon killing. The great majority are old-time striped bass fishermen, or have, with lighter tackle, struggled with black bass or other gamy and hard-fighting fish of some sort before, and of course the general principles of handlining are much the same. One point, however, is worth considering, because of the difference of opinion regarding it entertained by experts. As the tarpon often leaps clear of the water, not only once or twice, but even a dozen or more times in the course of the contest, it is necessary to meet these by some method best calculated to save your tackle as well as your fish. It is, I think, the common custom to dip the point of the rod to these breaks for reasons with which every angler is familiar, yet there are those who claim that, by swaying vigorously back upon the rod while the fish is in the air, he can be so turned as to make him fall flat upon the water, thus "knocking the life out of him," as they express it. As between the two methods I do not assume to judge, but certain it is that the old and experienced tarpon anglers always handle their fish more roughly, have more confidence in their tackle, and generally kill their fish much quicker than do the beginners at the art.

It is by no means certain that this is due to the practice of the particular method here suggested. Indeed, it is much more probable that full confidence in their tackle and frequent practice in testing it enables them to judge more accurately the precise strain they will withstand, and enables them to yield no more nor less line from the reel than is absolutely required, and to yield that little just at the proper moment. There is no royal road to the acquirement of uncommon skill in tarpon fishing. It is difficult for the most successful to account for their success; it troubles the most unfortunate to explain just why they fail to succeed.

# THE AQUARIUM.

CONDUCTED BY HUGO MULERTT.

The Editor of this Department will answer all queries relative to the conduct of Aquaria.]

## The Nest-Building Stickleback.

Sticklebacks are wonderful fish and with them many wonderful things are possible. We know of no other fish that harmonize their colors to the surroundings as do the sticklebacks. Take the many-spined stickleback as an example. In a pond at Maspetto, L. I., which has a bottom of white clay, and is so situated as to be under the full glare of sunlight nearly all day, the color of the sticklebacks was that of a dirty white. A half mile beyond this pond was a ditch containing peaty water; here the same variety of sticklebacks were brown. A few yards beyond this ditch was a hole, the bottom of which was black creek mud; here the sticklebacks were jet black, even to the eyes. The male

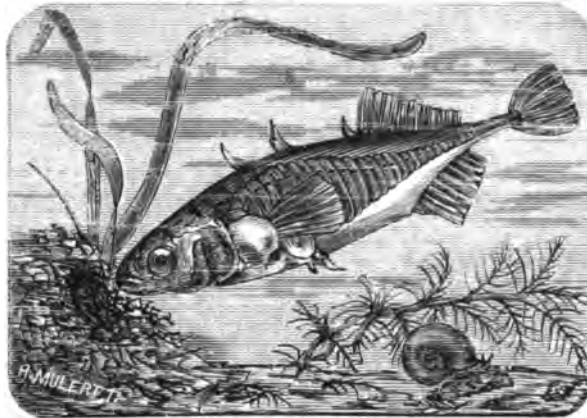
fish of the two-spined species, *Gasterosteus aculeatus* (see illustration), are more wonderful as illustration of this fact. The first indication that a male stickleback is about to construct a nest is the taking on of green and red colors, the eye at the same time becoming blue. When the nest is completed, and the time has come to either coax or drive the female to deposit her ova in the nest, then the colors of the male become wonderfully intense, the red on the lower part of his body becoming almost luminous. These colors the male retains until he abandons the young sticklebacks to shift for themselves.

In nature the male stickleback always selects material for his nest that is in keeping and

harmony with the surroundings. This is a wise precaution for masking the contents of the nest from other fish, particularly the sticklebacks, who are very fond of fish eggs.

The following description by one of our friends will assist you when about to establish a "sticklebackery" without being in possession of a regular aquarium tank:

"Up in the hay loft was a box of window glass. Taking a number of panes of glass, I formed in a wash-tub a series of compartments in the following manner: From the centre of the tub the panes of glass radiated until they came in close contact with the sides of the tub, thus forming a series of acute angles; the bottom edges of the glass were then crowded down



through the three inches of sand till they rested on the bottom of the tub. In the apexes of the angles bunches of water plants were planted; this also helped to sustain the glass compartments, as well as to keep up thorough oxygenation of the water. In each compartment I placed a pair of sticklebacks, giving them a meal of angle worms before leaving them for the night. Next morning, when I examined the tub, to my great surprise many nests had been made during the night. In some of them the bright yellow eggs showed plainly through the openings of the nest. Every nest was vigorously ventilated by the male fish, who were hard at work fanning a current of water on them with their pectoral fins. In one compart-

ment a male fish was tearing off small pieces of *confervæ* that grew on the water plants, which he carried in his mouth to the nest, packing it down with his snout. After placing several mouthfuls in this way he fastened the pieces together more compactly by pressing them down with the under side of his body, at the same time exuding a marine glue, so to speak, that cemented all together. In the centre and on the top of each nest were four orifices, and into these the male, after a considerable display of anger and much labor, at last drove the female, her head projecting far enough out to allow her to breathe. A few minutes later the male drove her out of the nest again, head first, and entered himself, passing over the eggs in the same direction the female had, and fertilized them by spreading his milt over them. In an instant he was out, flashing all over with blue, green and orange, his eyes looking like small turquoises. When the openings of the nest became too large, he contracted them by patching on more *confervæ*. Over the nest he remained day and night, changing from one opening to another, constantly fanning a current of water through them. Whenever poor Mrs. Stickleback showed herself her mate drove at her fiercely, biting her until she was glad to hide among the water plants. The trouble was that she would have eaten all the eggs if she had had a chance, and he knew it. For this reason I took all the females out as soon as they had deposited their eggs. As each nest was completed and the eggs deposited I withdrew the glass partitions, but a terrible battle taking place between the males, I had to replace them. Even then they would try to fight each other through the glass. When all the eggs were hatched, and the bottom of each compartment seemed alive with young sticklebacks, I removed all the male fish and glass partitions, and in a few weeks was the happy possessor of a large school of inquisitive, restless, baby sticklebacks."

To this we add, from our own experience, that all the females, after depositing their eggs, refused to eat chopped earth worms, on which we used to feed them, and died in one or two days after. The young fish made their ap-

pearance twelve days after the eggs were deposited.

### The Goldfish.

The goldfish is a member of the carp family and a native of Asia. Its natural habitat is standing water. In China or Japan goldfish are found of all colors except green; they also vary largely in shape and size—some species grow large enough for the table, while others never grow more than a few inches in size. The goldfish may be well counted as one of the domestic animals. It holds the same place among the finny tribe that pigeons hold among birds—they are prized for their shapes and colors.

The first goldfish brought to Europe, from where this country received its earliest supplies, were of the poorest and commonest breed; they were of a golden color, hence the name for the entire genus; and it will thus be understood why people speak of black, white, red or blue goldfish. The old-fashioned goldfish lives now in a wild state in this country, and is in fact counted among the native fishes of North America.

Goldfish are easily kept as pets, and most of those that die are killed through mistaken kindness rather than neglect. One of the main troubles arises from the habit of some people to keep more than they can comfortably. A pair of two and one-half to three-inch goldfish should have one gallon of water to live in. If they are larger they need more in proportion. In buying fish select such that were cultivated and kept in standing water. The sizes of these should be in proportion with the vessel for which they are intended.

In fitting up the globe or tank for them see that it is cleaned without the use of soap; cover the bottom one inch deep with coarse, sharp, sea or river sand; in this plant one or more kinds of water plants; place several little rocks or pebbles about their roots to hold them in place until established, and then carefully fill the vessel to within two inches of the top with pure water—whether this is spring, well, cistern or hydrant water is immaterial. As long as it is fit to drink for yourself it is all right, but it should be clear. Now gently place your fish

in the water, together with a few water snails and one or two tadpoles, which will act as scavengers; then set the entire collection where it will have an abundance of pure air, good light, but no sun. Submerged water plants, when exposed to light, purify the water.

Once a day goldfish should be fed with prepared goldfish food. A piece as large as a cent, crumpled up, is enough for two small fish each time. If you feed more than they eat at once it will spoil the water. To this, their regular meal, you may add, to good advantage, once a week some scraped raw beef or chopped up earth worms, in quantities to allow a small mouthful for each fish.

The inner side of the glass of the vessel in which you keep your fish must be wiped off at least once a week, after which also the water lost by evaporation is replaced. If these instructions be followed it will not be necessary to change the water of the globe oftener than every two or three months, while a square tank will keep six months and longer, but after six

months' it is best to clean and rearrange an aquarium.

The best temperature for goldfish is between 60° F. and 90° F. They will stand it as low as 32° F. and as high as 110° F., but they are very sensitive to sudden changes—10° one or the other way may prove fatal. When goldfish gasp for air on the surface of the water it indicates that they are uncomfortable. Find out the cause. It may arise from a close atmosphere before a thunderstorm, impure air in your room or decomposing objects, such as minerals or sea shells, etc., contained in the water; at any rate, when you see your fish in that condition attend to them at once, or they will die a fearful death by suffocation.

These are the main points one has to observe to keep goldfish in a healthy state, and under such treatment goldfish may be kept in a thriving condition for ten years and even longer. The important question, "how often the water ought to be changed on goldfish," is therefore thus answered: "As often as it becomes necessary under the prevailing conditions."



## NOTES AND QUERIES.

[Under this Department Heading queries relative to Angling, Ichthyology and Fish Culture will be answered.]

### The Education of an Angler.

An ambitious yet apparently earnest fisherman writes us to tell him how he can become educated in the art of angling. We cannot reach his needs more directly than by repeating our former notes to a similar query made to us in 1888:

The young angler who has imbibed a love of fishing in his "bib and tucker," pin hook and "minny" days, and has grown, year by year, in enthusiasm over the pursuit of his favorite pastime, yearning for knowledge and practical experience in the higher branches of the art, is doubtless often appalled as he surveys the field of angling literature, wherein the teachings of the old and modern masters are written. His dismay is not lessened by association with those of the craft who are called "experts" by their more modest brethren. He is apt to be confused and overwhelmed by learned discourses on the color, form, size, etc., of the "expert's" favorite lures, and the splitting of hairs from "nor' to nor'west side," on the shading of color in the wing of a fly, or the differential fraction of a millimeter in the angle of draft in a hook. Over 2,500 distinct works have been published on the subject of angling; including the various editions thereof, issued from time to time, the number swells to nearly 3,500 volumes, exclusive of ichthyological or purely scientific works. When we consider that nowadays the so-called expert must also be an angling bibliophile, no wonder that even the practical and stream-made angler modestly shrinks from contact with his pretentious brother of the books.

Again, the grand total of special names for artificial flies has been estimated at about 1,500, every maker of them dubbing his winged insect, although made upon lines "old as the hills," with a specific title; hence the

simplest forms of standard flies, formerly known as such the world over, have become changed in color and shape to such an extent that the generic fly is lost amidst its modern modifications. The names and shapes of hooks equally confuse the tyro and the old fisherman; of sizes there are about 1,200; of trade names about 50; simplicity of system has given way to the iron-clad demands of trade methods. In the United States alone the manufacture and introduction, within the last decade, of reels of various makes, sizes, mechanism, etc., have been so great that the ordinary angler is confused in his judgment as to which is best; a trial service can alone decide the question, and it is by no means unusual to hear a practical rodster say that the old click and free-running reels are more reliable than the new. But such a remark is pure heresy to the modern Solon of the craft.

When selecting a rod from the many makers, about thirty different materials from which they are made, and several hundreds of sizes and shapes, are sources of perplexity and doubt to the inexperienced; artificial baits, exclusive of flies, range in variety into the hundreds; special tackle devices, such as baiting needles, bait buckets, landing nets, disgorgers, etc., can be numbered by the scores, and the "all-round angler" is by many expected to be a jack-of-all-trades, to whom the delicate manipulation of a hackle from a Christmas cock and the forging of a gaff for boating the mighty leaper of the Southern seas—the lordly tarpon—must be A B C work. A knowledge of fly tying and feather dyeing is deemed by many a necessary accomplishment of the modern expert, and some even go so far as to deem the angler's education neglected when he does not exhibit the art of Savarin in cooking the quarry that his artistic skill has boated or grassed. Wood lore and stream



lore; a knowledge of flies adapted to the changing conditions of seasons and streams; the natural history of every fluttering ephemera of the pools, their larval, chrysalis and butterfly stages, and the days, if not specific hours, when the dainty fish decide to feed upon them, must be at the tongue's tip of the modern expert, or caste is lost. Moreover and finally, but not exhaustive of the subject, he is expected to be able to give an off-hand angling monograph of every fish that takes a lure, its habits, habitat, migrations, class, order, genera, etc.

Such is the high mark which the young angler must train his intelligence to reach, but there is a pleasure in every step he takes, be it within the seclusion of the library, adown the rocky bedway of the stream or along its grass-grown banks; and if I have catalogued, somewhat at large, the requirements, and shown, to some extent, the absurdities of the modern estimate of the accomplishments of the "expert," it has not been with a view of underrating the value of craft knowledge or discouraging the beginner, to whom it may be said advisedly that a very slight acquaintance with the *technique* of the art, if reinforced by a love of stream work, an observant eye and a clear and ready judgment, will quickly develop a skilled and practical angler.

We are grateful for and rather proud of the host of sympathetic and encouraging letters coming in upon us from every section of the country, a few of which we print below as an evidence of the earnestness of the craft not to allow their paper to die from want of encouragement and material aid. Thanks to the efforts of our old subscribers, new ones are coming in freely, reminding us of the old days when *THE ANGLER* was in its infancy, and when every earnest craftsman constituted himself a committee of one to work among his friends and swell the list. May the good work go on:

FRIEND HARRIS:—My regret over the necessity which compels you to discontinue the weekly *ANGLER* finds solace

in the merits of the first number of the monthly. If you keep up the pace the success of that journal is assured, and for many a year will bear witness to the perseverance and versatility of the most resourceful editor I ever knew.

Yours fraternally,  
PASSAIC, N. J.

H. H. Thompson.

MY DEAR MR. HARRIS:—I have just received your touching—I might almost say pathetic—circular, and to assure you that I deeply sympathize with the disappointment of your most reasonable and modest journalistic hopes is to state the case very mildly indeed. It is certainly very disheartening to know that, among the scores of thousands of well-to-do anglers in this country, a sufficient number cannot, so far, be found possessing enough of patriotism—not to mention love of the craft—to adequately support and encourage a journal which has been for ten years devoted exclusively to their interests and those of the brotherhood in general. Of your own unceasing efforts, your generous labors, I need not speak further than to say that these alone have, during the life of *THE AMERICAN ANGLER*, wrought a change so wonderful that it amounts to an actual revolution in all that pertains to ichthyological knowledge on this continent. And not only so, but, aided by congenial correspondents, you have so purified and elevated the ethics of the gentle art, so successfully striven to inculcate sportsmanlike methods, so ably advocated the rights of the fishes as well as the prerogatives of the fishermen, that now one who is truly entitled to the name of angler is recognized everywhere as a gentleman. When I look back upon the state of things in 1881 and call to mind the then generally prevailing ignorance as to the classification, nomenclature, and even the nature and edible qualities of many now well-known fishes, I can but confess that *THE AMERICAN ANGLER* has done a great work. That it has not proved a remunerative one ought to be, and doubtless is, a matter of deep regret to all fair-minded persons who have been so greatly benefitted by its teachings. Why the advertising patronage of *THE ANGLER* has not kept pace with its almost unique usefulness in this line I cannot conceive, for, beyond all possibility of cavil, it is, in regard to all kinds of angling merchandise, a singularly valuable advertising medium. I very well recollect that, when a few years ago I had a complete outfit to dispose of, a four-line "ad" in its columns brought me an immediate purchaser at my own price. Indeed, *THE AMERICAN ANGLER* is *sui generis*, and I risk little in prophesying that the next five years of its existence will amply atone for the disappointments and more than recoup the losses of the last ten. At least such is the confident hope of your ancient friend,

SAGINAW, MICH.

It was with profound regret that I learned of the forced change in the publication of your valuable paper, and it is a matter of wonder and surprise to me that you have not met with the financial success you have deserved for your untiring labor in behalf of angling literature. The first number of *THE ANGLER* as a monthly is a credit to its publishers, and I shall enjoy its pages equally as much as when they came week-y.

MINNEAPOLIS, MINN.

W. G. Hollis.

When *THE ANGLER*, in its new form, came a few days ago, I wanted to sit down at once, and tell you how much I liked

in. It strikes me as a very beautifully gotten up publication, not only beautiful to the eye, but readable all the way through, and the illustrations are a great addition to it. Your portrait of a sea horse is about the first one I've ever seen that was really good. I had the little fellows as pets in my aquarium so many times that I know them well, and your illustration is perfect. If *THE ANGLER* in its present form does not pay, it will be because fishermen have grown stupid or stingy, and I don't believe either possible.

KEENE VALLEY, ESSEX CO., N. Y.

R. M. Shurtleff.

I am very sorry to learn that the weekly edition has been stopped, but I can assure you I would not be without *THE ANGLER*, even if I was to receive it only once a year.

BROOKLYN, N. Y.

E. Ladeley.

I am fully in accord with you as per your late editorial. I wish you success, and believe that it is the duty of the angling fraternity to support you liberally, and by renewing their subscriptions to get the paper upon its feet. This will gladden the heart of the editor and ensure the continuation of a journal which has been of great value to its readers.

LARAMIE, WYOMING.

Otto Gramm.

The new number meets with my approval, and I now express my earnest hope and cordial good wishes for your full and best success. You may be sure of my sympathy and support in all your efforts.

PORTLAND, ORE.

J. H. Eaton.

#### Trouble with Trout Ova.

I have been to considerable expense in building hatching house and ponds for raising trout, but for the last three years I have failed to hatch any fish. I get my water by a box run seventy-five feet into a gravel bank almost level; it then runs into a distributing trough which is also level, and from there I take the water by means of syphons to my hatching troughs, which have a one-inch fall to twelve feet, as I cannot give them any more. The water appears to be very pure, with little or no sediment, and stands from forty to forty-six degrees in winter. The eggs seem to do well for about one month, and then begin to turn white and die. I have tried trays, gravel, and nothing at the bottom of my boxes, but to no purpose; they all die. I don't see any fungus on the eggs, but they keep a bright, nice color to the last. Now, if you can tell me the cause of them not hatching, you will place me under many obligations.

GUNNISON CITY, COL.

A. H. G.

If your eggs are impregnated, which you fail to mention, give your troughs one and a half inches more drop and run all the water possible. Keep the eggs on the trays or gravel and clean them with a feather, picking out all the bad ones. Your letter was submitted to M. A. Green, superintendent of the Caledonia Hatchery, N. Y., who adds to the above that your failure is owing to "a lack of circulation."

#### A Fly Material Cabinet.

I have just received an exceedingly good fly material cabinet that I ordered from Mr. Bainbridge, the long-established tackle dealer of Eton on Thames, England. It is the best arranged and most convenient thing I have seen in this line, and can easily be carried about if one is off on a fishing trip. Its dimensions are seventeen inches long, four inches deep and five and a half inches wide. There is a tray that lifts out which contains partitions enough to hold silks, tinsels, table vise, scissors, varnish, hooks, pliers, wax, gut, etc., and it covers twenty-six small cardboard boxes in which can be stored a good quantity of feathers, furs, wool, etc. Prices range from fifteen shillings to thirty, but they are also sold from thirty shillings to five pounds, fully fitted up with all necessary material. The one I got I did not think could be made for the money.

As I have had many inquiries from readers of *THE AMERICAN ANGLER* where to get certain material suitable for dressing salmon hooks, I may say here that Mr. Bainbridge keeps everything in this line, and what he has sent me has been well selected and good value, and, as the tackle dealers of the States seem too selfish to accommodate any one wishing to try his hand at fly tying, it is convenient to know where to go. I see in his book of prices a letter of recommendation from Mr. H. P. Wells, so he is evidently well known on this side of the Atlantic.

Silver Doctor.

S. H. DEDMAN.—You are correct; the bull bat feeds upon gnats and other small insects which it catches while flying. In fair weather these ascend into the upper regions of the atmosphere, and the bird flies high to catch them; but, as the weather changes from fair, the insects descend near to the earth, and the bird follows them down in pursuit of food. Fishermen may expect rain or falling weather when the bull bat flies low, but can roam and fish when everything is lovely and the bull bat flies high.

## Two West African Fishes.

SARCELLE.—We have had the photographs you sent us reproduced. Fig. 1 represents the *Pagrus unicolor*, Günther. It does not

our Atlantic waters we have several species of the horse mackerel, but, although many of them are taken by the market fishermen, they are not esteemed as food, although highly

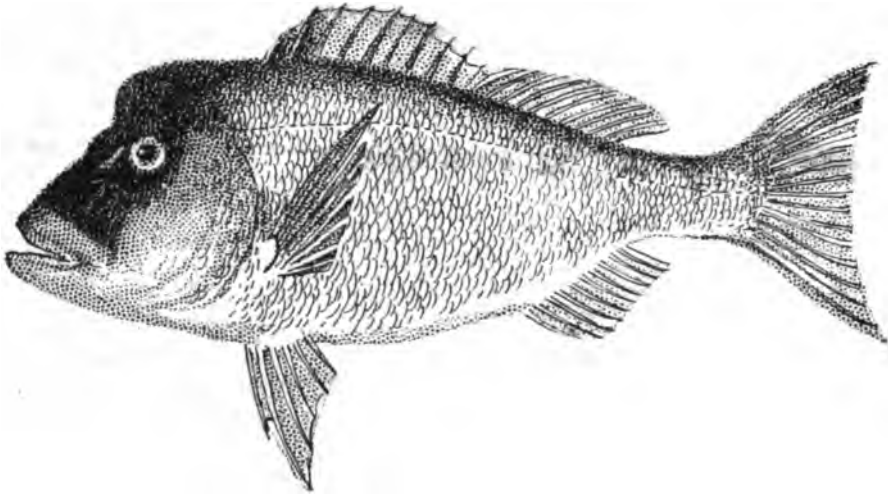


FIG. 1.—*Pagrus unicolor*.

reach American waters, being found most frequently on the western coast of Africa. It is allied to the "snapper" and "porgy" of our waters. Dr. David S. Jordan gives it the scientific name of *Sparus unicolor*.

prized as such in the Old World from the time of the ancient Romans to the present day.

## Care of Tackle in Winter.

That earnest angler, Bro. H. S. Bull, of

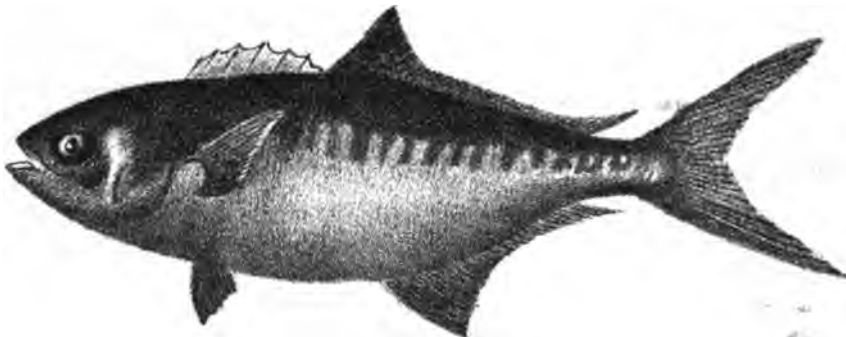


FIG. 2.—*Lithia vadigo*.

Fig. 2 represents another non-American fish, *Lithia vadigo*, which belongs to the family of horse mackerels or tunnies. With the genus *Lithia* ichthyologists are not entirely familiar, and Günther dismisses it with a few lines. In

Albany, gives some timely advice about the care of tackle during the "off season." We commend his practical words:

It is time to put up the tackle until next year, and right here a few words of advice, if heeded, may save many a

dollar. Take particular care that every article of the tackle is in proper shape before putting away. Rods should be first carefully straightened and then thoroughly rubbed down with pumice stone and oil, followed by two coats of varnish. This fall dressing has saved many a good rod.

Be sure that the guides and whippings are perfect before putting on the first coat. Reels should be taken apart, carefully cleaned and thoroughly oiled, this to prevent rusting. Enamelled lines should be run off, rubbed with oil and wound on a wide board. Braided lines can be rubbed down with a damp cloth; this will avoid mildew and rot. Great care should be exercised in putting away flies. Take them out of the book and place them in a box with a liberal quantity of camphor, finally wrapping the box up carefully in several folds of paper. Hooks should be dipped in oil and all the material should be placed in some dry place. If these hints are regarded the angler will find in the spring that his entire outfit is as good as new, and perhaps a little better from seasoning.

#### Law Breaking at Rouse's Point, N. Y.

In the last issue of your esteemed magazine I noticed a report from the fish commissioners of the good work they had been doing in New York State in checking illegal fishing. I am always glad to hear of the punishment of these "pot fishermen" who fish for weight and number with any murderous contrivance they can buy or invent. During the past summer I spent nearly two months on Lake Champlain and the "Richelieu," and found that nearly every one living about these waters fished illegally. Of course the officers have no jurisdiction over the "Richelieu," but if they would direct their attention to the northern end of Lake Champlain it would not only prove a great benefit to all anglers, but would be remunerative to the counties.

Among the numerous stories told me by the different guides was one that not only was wrong, but, in my opinion, was criminal. This was about a man who, during the early spring, shipped on an average of three barrels of bass per week from Rouse's Point, N. Y. Another case is that of the open spearing from the bridge at Rouse's Point and over the arms of that northern portion of the lake. As you are probably aware, the bass run large, and are game from the start, in that district, and it seems wrong to have them "murdered." Nothing seems to satisfy these fishermen unless they can bring in bass by the boat load. Dynamite is used even recklessly, and some

reefs have been entirely cleared of all fish; Isle le Motte Bridge, Pointe au Tongue and the reef at the head of Isle le Motte being the points dynamited oftener, on account of the few residences in the vicinity. I am firmly convinced that illegal fishing is carried on in a most bold and open way, and think the matter should be stopped as soon as possible, especially the taking of bass off the spawning beds, which is carried further than anything else.

I have written at greater length than I intended, and hope you will excuse this rambling, though important (in my estimation) information.

Allow me to congratulate you on the recent edition of your paper. I was sorry when I learned that it was to be changed to a monthly magazine, but since seeing the new *ANGLER* I am satisfied that it will be even more entertaining than the old form. I have been taking your paper, through a local dealer, for about six months, and anxiously look for each number to appear.

S. H. Vandergrift.

PITTSBURGH, PA.

#### Those Lake Edward Trout.

Although the account of trout fishing in Lake Edward, in the Province of Quebec, which appeared in *THE ANGLER* for October, is signed by five good men and true, our Pike County trout fishers beg leave to question its accuracy in some respects. In the first place, they do not recognize a lake as the proper home of speckled brook trout. Certainly they don't believe that this brand of the trout family naturally chooses lakes as its place of abode. In the second place, the alleged "brook trout" said to have been caught in Lake Edward were too heavy for brook trout, if we may judge from the average weight of that sort of trout caught in Pike County, the best region for speckled or brook trout known to us. Ten brook trout weighing thirty-three pounds are a "huckleberry above our persimmon," and two of such trout weighing "five pounds apiece" knocks Pike County credulity into a cocked hat. Mr. Editor, this fish story,

to use a favorite expression of Col. Bob Ingersoll, "won't do." Give us an easier one.

MILFORD, PA.

*Pike County.*

[If our Pike County correspondent had seen, as we have, that twelve and a half pound Rangeley Lake "speckled trout" caught by Mr. Grote, of this city, his doubts would have vanished. It was a true blue brook beauty, *fontinalis* to the bone.—ED.]

Anything that refers to creatures used as baits by anglers is of interest to the craft. Mr. John Grenville Mott, of Michigan City, Ind., sends us something new about frog habits:

"My boy was out not long ago on a frog spearing trip, and among the trophies he brought home was a very large bullfrog, one with a body about six or more inches long. While displaying his prizes he observed in the throat of the large frog what seemed to be the claw of some creature, and, on pulling it out, it proved to be a fully fledged bird, which had evidently been swallowed not long before. I presume the nest overhung the water, and when the fledglings were leaving the nest one of them fell near the old veteran and was incontinently gobbled up, as a smaller frog would pick up a grasshopper."

Senator A. H. Berthram was registered at Hotel Hallock, at Hallock, Minn., on Tuesday. The Senator tells a pretty good story on a farmer near Crookston, who was plowing while he was passing. He said there was water on every side, but the farmer kept right on plowing, and over his shoulder he was

carrying a fishing rod and line and was hauling out pickerel as he drove along.

The second number of "The Fishes of North America" is now ready for issue, price \$1.50, postage paid, delivered only to subscribers to the entire work, forty numbers; the first number, however, will be sent on approbation on receipt of \$1.50. The second part contains lithographic portraits, colored as in life, of the yellow perch and rainbow trout. Address the Harris Publishing Company, 10 Warren Street, New York.

Capt. Collins, who is in charge of the World's Fair exhibit of the United States Fish Commission, is preparing a series of casts illustrating all, or most, of the food species of fish; casts of other fishes which are interesting as types will also be exhibited. The geographical distribution of fishes in the United States will be shown by live specimens in aquaria.

B. W. THOMAS.—The shell of the crab and lobster owes its bluish gray color to the superposition of two pigments of coloring matters which have been isolated—a red pigment and a blue one. As long as these two pigments exist simultaneously the crustaceans remain gray. But the blue pigment is very fugitive, and sometimes, under the influence of disease, it is destroyed, and crabs are found with portions of their shell more or less reddish. When the crustaceans are immersed in boiling water the blue pigment is entirely destroyed, and the red pigment, which is very stable, appears alone in all its brilliancy.

# FISHING AND FISHING WATERS.

## THE BASS OF THOMAPPLE RIVER. MICH.

I was up in Michigan last week with my friend, Mr. W., of Joliet, Ill., and spent a couple of days at the Cascade Springs Hotel, on the Thomapple River, about ten miles from Grand Rapids. It is only two or three months since the hotel was opened, rather late for the summer business, but it will be a great convenience for anglers in the future, as the Thomapple is one of the best bass rivers in Michigan, and the wonderful curative powers of the springs will attract those who are after health as well as fishing.

The bass have almost ceased biting for the season, owing, it is supposed, to their having been completely gorged for several weeks past with worms from the oak trees along the banks. Many, in fact, nearly all, the oak trees have been stripped of their foliage by these destructive worms, which are pretty large and are eagerly eaten by the bass, but every gust of wind for some weeks shook so many of them into the water that the fish were surfeited.

We fished a stretch of seven or eight miles of the river on Saturday, under the guidance of Mr. Chas. Holt, who has for years had a trout hatchery at Cascade Springs, and who knows every inch of the river "like a book," but only caught four bass, and those bit in a very languid, indifferent way. In one place we saw at least twenty bass in a hole, but they would not look at a nice four-inch shiner dropped right among them. Last year they bit pretty well a good deal later than this. Those we caught were very fat.

J. G. M.

## LETTERS FROM A MONTANA RANCH.

I am still keeping track of the trout in the Yellowstone, and can say I never saw them more lively than nowadays. Judge Ballou is stopping with me, and he is one of my pupils, and says I taught him all he knows about fishing; he has improved so much that I feel proud of him. Day before yesterday he caught in the afternoon ninety-two, and to-day in forenoon brought in forty-five, and some very fine ones among them. He used fly and 'hoppers, and said it was about an even thing which they took the best. Both days the wind blew quite hard, and I called it rather a poor time to fish, especially with fly.

I have been so busy seeing to business of the ranch that I have not been out in several days, but I am in hopes my busy spell will let up soon, and then I will report progress in the trout line. I don't think the fishing has been any better for years in this vicinity than this season; hardly any one that knows much about fishing returns with less than forty or fifty for six or seven hours' work. The frost holds off nicely yet, and there are plenty of 'hoppers. But soon I expect to use the minnow, and it has been my luck, ever since I have been here, to get the largest trout with minnow bait, and during the months of October and November I have caught the finest ones, and from January, 1890, till January, 1891, I caught trout from the Yellowstone every month, and one of the finest lot of trout I got in February of this year, when the river was partly frozen over.

Mr. Everman, the gentleman seat out to Montana to look the country over or a site for a United States hatchery, passed (or

some of his party) my place and did not even stop to look and see the favorable points for the plant. Any disinterested party can see that the location and temperature of water, the amount never failing and never freezing in winter, can't be beat on the continent, to say nothing of the State. But I am in hopes the State authorities will look at it favorably, and I should take pleasure in taking charge of the matter here. It does seem singular that the water in the ponds in my yard never has frozen even around the edges, and I have known the thermometer down in the thirties since I have been here. About ten miles, so *finis*.

R. P. Van Horne.

## ANGLING IN NEW BRUNSWICK.

In July last I had the pleasure of spending several days on the Jacquet River. It is not by any means a large river, but it affords sport that may be considered quite good enough for a true lover of fly fishing. In the first place, the scenery (and to me this adds greatly to the enjoyment) is beautiful as you wander along the banks or wade in the stream. The latter is necessary but not difficult, as the water in July is, as a rule, not very rapid, and the river is easily crossed in most places. I am, of course, speaking of the lower part, that portion situated beyond Davidson's Pool (about a mile above the railway bridge) being preserved by an American named Straight (I am not sure how his name is spelled). His guardian, Hugh Miller, lives about ten miles above this, and watches the river closely, I believe. There are two salmon pools below the point from which it is preserved that are open to the public, and, although I have not been fortunate enough to take a salmon in, or I should say out, of them, I know they are occasionally caught here. Mr. R. W. Cassels, of Ottawa, Registrar of the Supreme Court, an enthusiastic angler and exceedingly agreeable fellow-sportsman, was successful in landing one of about ten pounds the first afternoon he fished in the river (early in July). I did not devote much time to these pools, as I prefer the certainty of catching the beautiful trout to the uncertainty of hooking a salmon, and I fancy, in these particular pools, where they are frequently disturbed, they seldom rise.

Good accommodation and board can be obtained at M. P. Doyle's Bayview Hotel (Armstrong's Brook post-office), within half a mile of the fishing and the same distance from the Baie des Chaleur, where there is good salt-water bathing and also mackerel fishing.

The following are considered good flies for the Jacquet River: For salmon, Jock Scott, silver doctor and dusty miller, and for trout, claret, professor, queen of the water, brown hackle, Parmachene Belle, Canada, governor, coachman and Baird (made by John Baird, of Moncton, a professional tyer of first-class salmon and trout flies). I tie most of my own flies (generally without regard to any particular pattern), and, as a rule, I prefer to fish with them to the bought ones; not that I pretend to say that they are better, but because there is a great amount of satisfaction, I think, to an angler in inducing the fish to rise at flies of his own make; at least such has been my experience for some years past. Then, again, there is considerable pleasure in making them on a winter's evening, while thinking over old times, and what the particular fly you are constructing may do next season.

In fishing this river, a rod of between eleven and twelve feet, fifty yards of line and a good, strong casting line are required, as you might, of course, happen to strike a salmon at any time in the pools I have mentioned. During July the trout in the lower portion of the river are small, the large ones having gone up the river several miles. People residing at Jacquet River informed me that about May and early in June trout are caught near the Intercolonial Railway bridge weighing from four to six pounds, but that they are taken with bait only. For my own part I prefer to catch half-pound trout later on in the season with a fly to six-pound trout in May with bait. Every one to his own taste, however. This article is intended merely to give information to either fly or bait sportsmen who may be on the lookout for such a locality, where they can have fair sport without excessive exertion and be able to return to the hotel during the evening.

In concluding this article allow me to say that I trust the publisher of *THE ANGLER*, in issuing his paper monthly hereafter, may meet with success and sufficient subscribers to warrant him in continuing its publication. For one, I have derived very great pleasure and much useful information from perusing its pages, and will now look forward to its receipt each month with additional interest.

G. W.

OTTAWA, CANADA, September 28.

#### TROLLING IN THE POTOMAC.

J. W. Whelpley and C. H. Laird, of Washington, D. C., and Mr. Snyder, of Kansas City, Mo., caught forty-nine black bass, largest three and a half pounds, smallest one pound; bait, live minnows. These fish were all caught casting or trolling; no still fishing.

C. J. J.

October 11.

#### PUBLISHER'S DEPARTMENT.

**HOW A PUZZLE WAS SOLVED.**—When you want a certain article, you want the best make of that article, don't you? But how to determine which make is best is what puzzles you, isn't it? And when the puzzle is solved for you, by authority which cannot be questioned, you are pleased, aren't you? And you would like to hear of one puzzle that

has been solved for the people of the whole world, wouldn't you? Well, we will tell you about that very puzzle and its solution. There is no further doubt by the scene experienced angler that luminosity is the greatest attraction to the funny tribe, which explains why Pfeuger's patented luminous fish baits have become so popular with the trade. Made and controlled by the Enterprise Manufacturing Company, Akron, O.

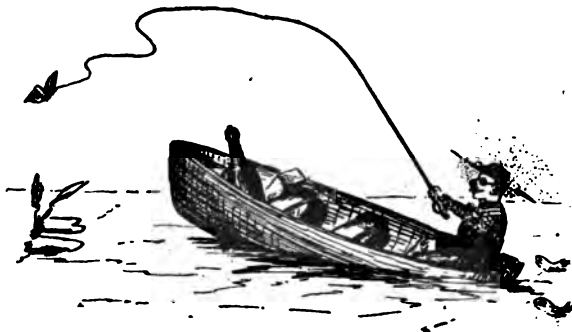
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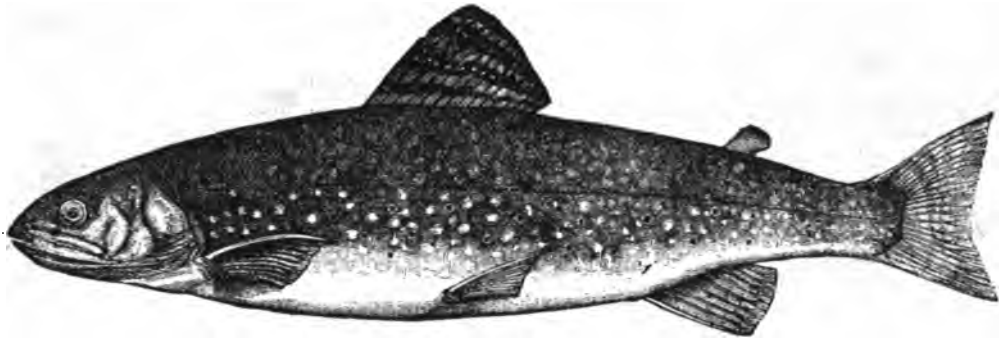
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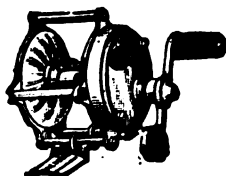
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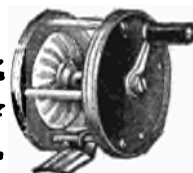


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Fig. 1.

Fig. 2.

Fig. 3.

**FIGURE 1.**—Shows Celluloid reinforcement for both male and female Ferrule.

**FIGURE 2.**—Shows male Ferrule, with reinforcement of Celluloid underneath German Silver Ferrule.

**FIGURE 3.**—Shows sectional view of the waterproof joint from shoulder up.

### WHAT THE ANGLERS SAY.

THE PARADISE FIN AND FEATHER CLUB, LAC DEL GRANDES ISLES, CANADA, July 14, 1890.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—I have handled some pretty good rods, but none has pleased me better than the five-ounce "Kosmic" which you built for me last May. I labored with it daily during the month of June, and lifted many heavy trout up to four pounds each, and then, in order to test its murderous qualities, tried bottom fishing with a four-ounce live perch for bait. The little perch went into the jaws of a four-pound trout, and in due time the trout went into my boat. This, you will concede, is a hard test for so light a tool, but it stood it like an old timer, and is worth all the praise I can give it. I like a rod with backbone—one that is tough and stiff in the middle joint; for after all a rod's work is done between the two ferrules, and in this most valuable essential my "Kosmic" is perfection. Besides, the artistic mounting and beauty of finish displayed in the rod won admiration from many accomplished anglers. The man who tries to make a better rod will have to hustle.

Yours respectfully,

KIT CLARKE.

CLEVELAND, OHIO, May 16, 1891.

A. G. Spalding & Bros., Chicago, Ill.—MY DEAR SIRS:—I know it will please you to hear a report on the action of the 4½-ounce "Kosmic" trout fly-rod you sent me—because it is emphatically a good report. With a half dozen rods of my own, it is the best one I ever had in my hand, and during a visit to Castalia this week, all the club members who saw it spoke highly of its admirable qualities. The keeper, also, who is a beautiful fly caster, said it was "the best little rod, and the biggest little rod," he ever saw. They know a good one when they see it at Castalia, too.

Yours sincerely,

CHAS. W. BURROWS,  
President the Burrows Brothers Company.

CLAYTON, N. Y., August 16, 1891.

MY DEAR SIRS:—I never had a rod that hooked a fish as easily, and held it as well as my first "Kosmic." And in this respect the new rod works as well as the old, and I have already done with it some very good fishing.

Sincerely yours,

I. LIVINGSTON REES.

BOCA, CALIFORNIA, March 15, 1891.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—I take pleasure in acknowledging the receipt of the little five-ounce "Kosmic" fly-rod which you have built for me. It is a "dandy," the best I have ever possessed. Its excellence, casting qualities, artistic mounting and beauty of finish displayed in the rod, commend it to all anglers. It is the most perfect rod I ever used, but I need not go into particulars, for, as a whole, it fills all my desires for a rod, and seems as near perfect as man can make it. It is a beauty as well as a perfect piece of workmanship. I shall now feel good all over when I go to rig my cast of flies. I congratulate you on your success in getting up so handsome and so excellent a rod.

Yours very truly,

GEORGE L. BRADFORD.

NEW YORK, November 15, 1890.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—The working of the six-ounce "Kosmic" rod, which I obtained from you, exceeded my most sanguine expectations. I took with it three black bass in succession, weighing respectively two and a half, two and three pounds. I was fly casting from shore, and, not having landing net with me, I had to drag the fish up a shelving rock; but the little rod stood the strain admirably. I have caught many bass with the same rod since, but none as heavy as those three. Notwithstanding the hard usage to which I have subjected it, its "line" is perfect and its "backbone" unimpaired. I can, and shall, cheerfully recommend the "Kosmic" rod.

Yours very truly,

SAM SUM.

29 Broadway, NEW YORK, September 14, 1891.

Messrs. A. G. Spalding & Bros.—MY DEAR SIRS:—Referring to your inquiry about the Kosmic rod I purchased from you, I beg to say that I have found it absolutely perfect. I never could believe that so light a rod could be built so stiff and strong. I hooked six mascalonge on it and landed five out of the six; the other one was lost in gaffing alongside the boat. The heaviest fish I had on was about forty-two pounds, and the one I lost was about the same size, probably the mate of the first one, as it was struck only a few yards away. I can conscientiously say that the Kosmic is the most satisfactory rod I ever fished with.

Yours very truly,

J. CHURCHWARD.

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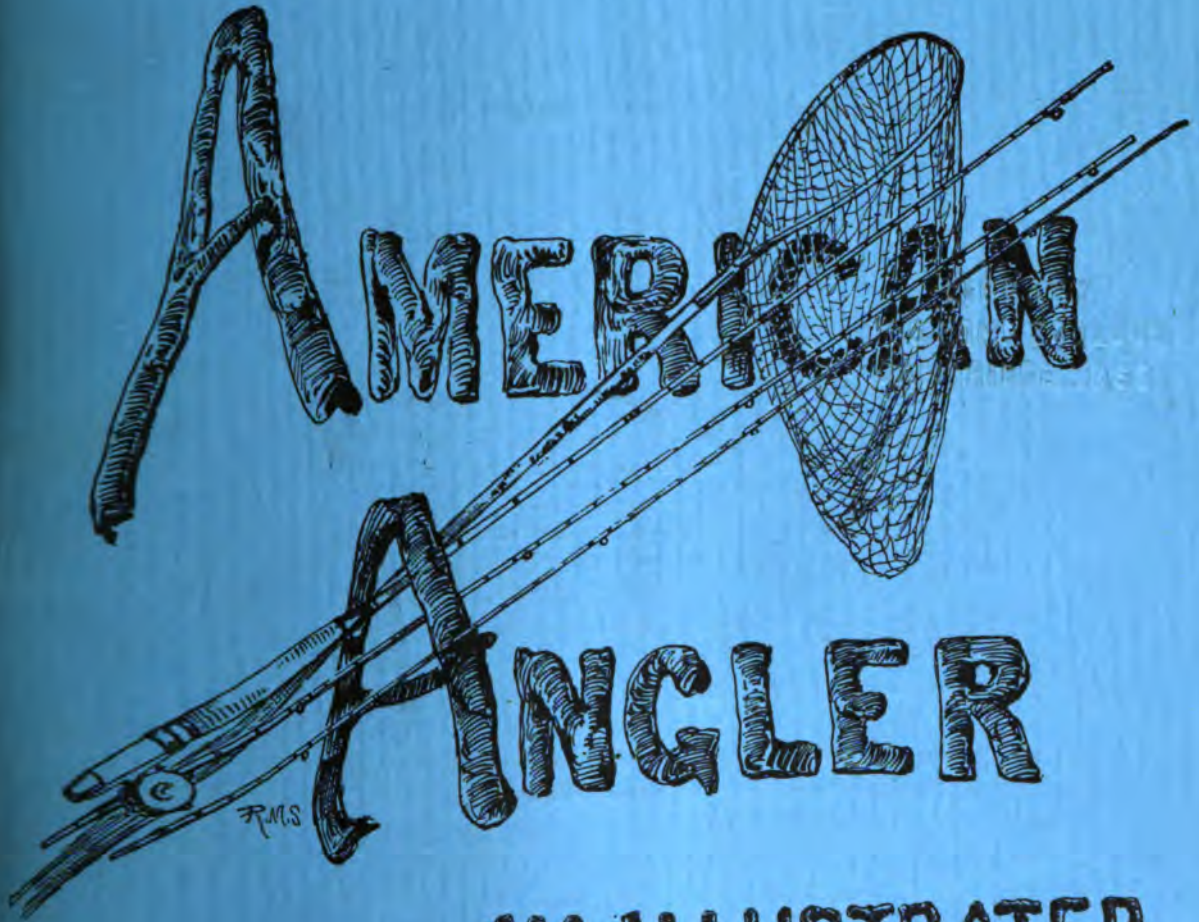
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THE



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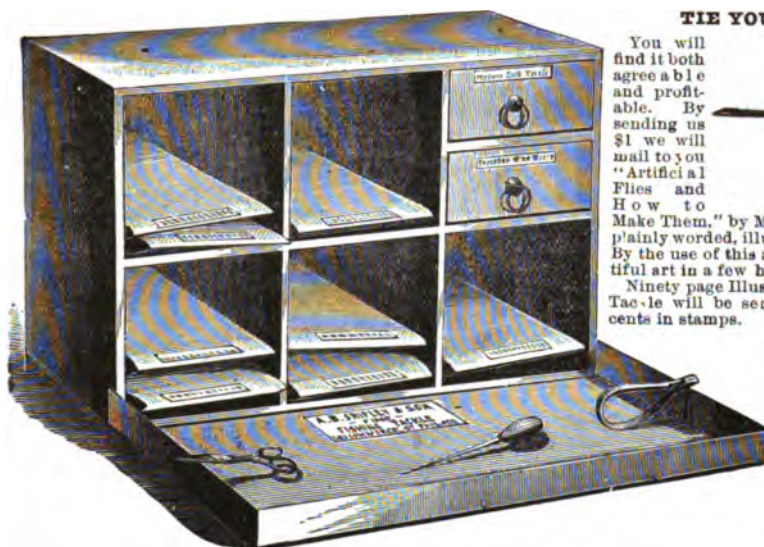
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NOTE.—We will send post-paid, on receipt of price, any of the following named goods. If the amount be one dollar or more we will mail our new Catalogue gratis.

**FINE TROUT AND GRAYLING FLIES.**

Regular Grade.....	.30 per doz.
Best ".....	.50 "
Extra High Grade.....	.75 "
Turned wing.....	1.00 "
Gnats and Midges.....	1.00 "

**Fine Salmon Flies to Order.**

### SELECTED GUT LEADERS AND CASTING LINES

	Three feet.	Six feet.
Single Gut, Regular Trout.....	\$ .50	\$1.00 per doz.
"    Best Trout.....	1.00	2.00 "
"    Regular Black Bass .....	1.75	3.50 "
"    Best Black Bass .....	2.00	4.00 "
Double Gut, Best Black Bass .....	1.50	3.00 "
"    Extra .....	2.40	4.80 "
Treble Gut.....	1.50	3.00 "

### OUR CELEBRATED SNELLED HOOKS.

Extra High Grade Single Gut. ....	30c.	per doz.
"    "    Double Gut.....	40c.	"
Fst Grade Single Gut.....	20c.	"
"    Double Gut.....	30c.	"
Special Grade Single Gut.....	12c.	"
"    Double Gut.....	20c.	"

**FINE BLACK BASS AND LAKE FLIES.**

Regular Casting.....	\$ .75 per doz.
"    with helper.....	.85 "
Best Casting ".....	1.50 "
Regular Trolling, Double Gut.....	.85 "
Best ".....	1.50 "
Fine Lake Flies.....	\$1.00, \$1.50, 1.75 "

**SILKWORM GUT (100 STRANDS IN HANK).**

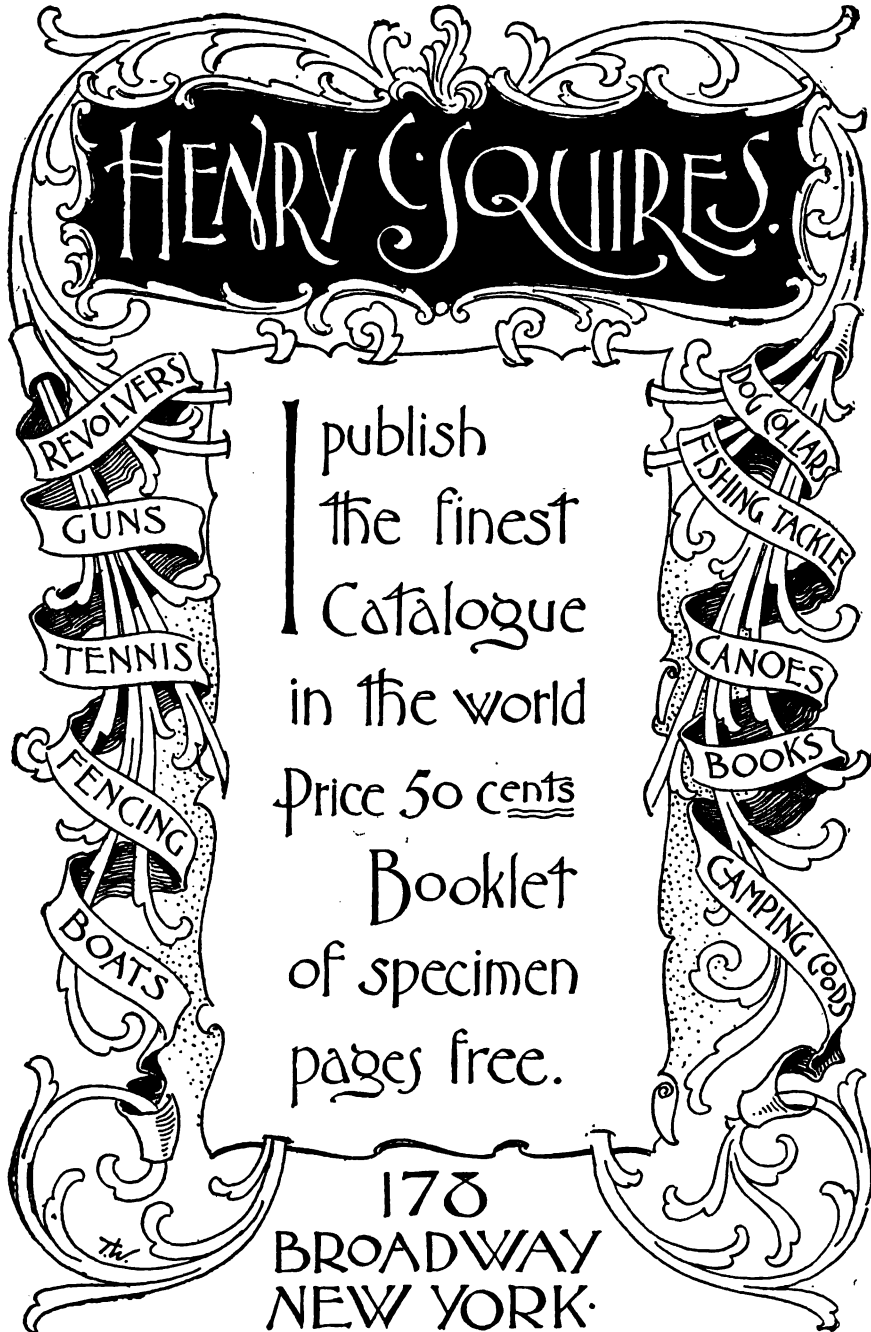
Ordinary Trout .....	\$ .40 per hank.
Regular " .....	.50 "
Best " .....	.60 "
Ordinary Bass .....	.75 "
Regular " .....	1.00 "
Best " .....	1.50 "
Extra " .....	1.75 "
Regular Salmon .....	3.00 "

### HEXAGONAL SPLIT BAMBOO RODS.

German Silver	Best Hand-made	Fly	.....	\$12.00
"	"	Bait	.....	14.00
"	Fly or Henshall		.....	7 50
Nickel	"	"	.....	6.50
"	"	"	.....	8 50

**All Styles of Salt Water Rods.**

**TRADE PRICES AND DISCOUNT SHEET TO DEALERS.**

The advertisement is framed by a highly ornate, symmetrical border. At the top, a large, dark, arched banner contains the name "HENRY SQUIRES" in a stylized, white, serif font. The border itself is composed of intricate scrollwork and floral patterns. On the left side, a vertical strip of ribbons lists various items: "REVOLVERS", "GUNS", "TENNIS", "FENCING", and "BOATS". On the right side, another vertical strip of ribbons lists: "BOWLERS", "FISHING TACKLE", "CANOES", "BOOKS", and "CAMPING GOODS". The central text is arranged in a column, with the first line "I publish" being smaller than the others. The address "178 BROADWAY NEW YORK." is at the bottom, with "178" being significantly larger than the rest of the text.

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Price 50 cents  
Booklet  
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BROADWAY  
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# THE AMERICAN ANGLER.

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DECEMBER, 1891.

No. 3

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## FROM THE MISSISSIPPI TO ALASKA.

BY HENRY D. ESTABROOK.

For we only begin to fully enjoy the beauties of nature when we talk about them on the spot.—*Heine*.

Alaska! Hasn't it a crisp, cold, brittle sound, that fairly clinks in the mouth like a chunk of ice? And yet, when I left Omaha, the temperature was so low that I thought seriously of spending my vacation in Texas, or some other outpost of Sheol, where I might at least keep warm; for, be it known, I am traveling on account of my health—not my present, immediate health, but some vague, future health which may not be so robust. An ounce of prevention is worth a pound of cure, and certainly traveling is the most sugar-coated bolus in the pharmacy.

My companions, for the most part, have been delightful. In the first place there is Shakespeare, Balzac, Heine, Lowell, Browning, Zola and that Kidling Kipling, all jolly good fellows who do not resent being pushed aside when they begin to bore you. Then there is, or rather was, a box or so of Manuel Garcias, a canister of Cut Cavendish and a violet-wood pipe. Last, but not least, there is a flask of "Old Pepper," with a metal epidermis which pulls off and serves the double purpose of cuirass and drinking cup. Aside from these I have, of course, made the ephemeral friendships incident to so long a journey. There is the vis-a-vis of the Pullman smoking room, with whom you dovetail legs and discuss topics ranging from polygamy in Utah to celibacy in Massachusetts. You blow smoke at each other for a cigar or two and then sort of evaporate in the clouds exhaled to meet no more, alas! forever. However, the most enduring friendships are scarcely longer, and to

say "hail and farewell" to the disintegrating organism called man, is at least a privilege.

On board the City of Mexico (the Alaska steamer, from whose upper deck I am writing), I am permitted the acquaintance of several ladies. We have the inevitable bride, whose extreme lovelornness gave me my only attack of seasickness. On the other hand, there is the young lady sent by cruel parents on a sea voyage to induce her to give up an obstreperous lover. The experiment I think has succeeded, for, like a similar case I once read of, she seemed ready the second day out to "give up" everything. We have also a stout, middle-aged party, who sings soprano. Her voice has the vibratory quality of a sheep's when it says baa-a. Her repertoire consists of Tosti's "Good bye." I am now prepared to bleat this impassioned melody backward with no effort of memory.

Of the gentlemen passengers least agreeable, one is a small, sallow man, who beseeches everybody to play cards with him, and who fills in odd moments with an infinitude of solitaire. Then there is one of those epicene idiots, commonly called dudes, whose panties turn up at the bottom and whose nose turns up at the end. Moreover, he examines icebergs through a monocle. Moreover, he spells his name Smyth, another one of the Smiths who has got sidetracked on a "Y." But perhaps the most objectionable of them all is an old gentleman from Chicago, who is taking a pleasure trip as a matter of business. I have seen, alas! too much of him, both on the cars and on the boats. He has permitted himself so many days, so many hours and so many

minutes in which to squeeze in a vast deal of "pleasure." The chief object of interest to him is the time card. I remember that if the train stopped six minutes at a station, instead of the allotted five, he would pull up from his flannel shirt bosom a huge gold watch and, snapping it in the face of the conductor, want to know what the — all this delay was about. He is quite positive we will miss connection wherever a connection is to be made. He never pays money without informing the payee that when he travels he proposes, b'gosh, to get his money's worth. Poor rich devil !

Now I have seen, and am still seeing, many new and wonderful things, but have really had no one with whom to share my enthusiasms. Wherefore I proceed to pour the accumulated fervor into your ample and attentive ears.

To begin with, I started from Omaha on the afternoon of July 19 via the Union Pacific. It is usual to speak well of a bridge which carries you safely over ; at the risk of wounding your anti-monopolistic sensibilities I venture to do as much for the Union Pacific. Certainly no more majestic caravan ever headed for the desert than the long train of vestibuled Pullman coaches known as the Union Pacific "Flyer." Moreover, it is a caravansary as well as a caravan, for it has its own dining car from Omaha to Portland. The "Flyer" is appropriately named. It speeds along at an average rate of nearly forty miles an hour, which is really as fast as a person of my cautious temperament cares to travel. But the rapidity of your progress is scarcely noticeable on account of the smoothness of the roadbed. I have a way of testing the nodosity of railroad tracks which may not be scientific but is always accurate. It is to measure the amount of coffee splashed into your saucer during meal time in a dining car, reduce to gills and note down for future comparison. Now it is a solemn fact, worthy of wide quotation, that of the gallons of Union Pacific coffee drank on this trip (not necessarily by myself) not a drop was lost ; nay, more, said coffee scarcely oscillated in the cup. This may be due in part to the excellent quality of the beverage. I wish also to express my appreciation of the unfailing courtesy of the attendants. Our first porter was a venerable ne-

gro with the mien and dignity of a Roman senator, which means more than the mien and dignity of a U. S. senator.

It was with some misgivings I thought of offering him the usual honorarium ; he might feel insulted, you know. From force of habit, however, I made the tender and—he took it. All in all, the *menage*, as the French put it, was excellent. Now I had ample leisure to note these important trifles ; for nothing less than noteworthy service on the part of the company could mitigate the tedium and yawning monotony of the journey. First there was the monotony of prairie towns. They are all alike, have the same commonplace architecture, and are uniformly uninteresting ; not the people in 'em, I don't mean—they are usually hustlers from Hustlerville—but the towns themselves are topographically inane. Then there was the glorious monotony of Nebraska cornfields. An Omaha man can stand a good deal of that sort. Then came the monotony of sage brush and cactus. For hundreds of dreary miles the desolate earth is blotched with white and yellow scales, a sort of alkaline leprosy. Then there was the monotony of clinking rails, of reading, of sitting down, of standing up, of doing nothing, of things in general. Lord ! Lord ! What did I not resort to for divertisement ! I cornered my fellow man in the smoking room and smoked at him, and through him, and around him ; and asked his opinion of politics and religion and crops and steamboats. I ate three perfunctory meals a day just to explore side dishes with a fork. I had the Roman senator fetch me pillows and take 'em away again. I stood on the rear platform with a man with whiskers and listened to the wild æolian music as the wind blew through them. And then I would come back to my seat and read, and read, until my spectacles bulged out of their sockets. And then—and then—

But I woke up one morning in Salt Lake City and was driven to "The Knutsford."

"The Knutsford" is the awful name of an otherwise tip-top hotel recently completed. It is a six-story stone structure, very comfortably equipped, and is really an Omaha institution. It was planned by Omaha architects, built by

Omaha contractors and owned principally by Wendell Benson, an Omaha capitalist. If these gentlemen would form a like conspiracy in behalf of Omaha, all would be forgiven.

Salt Lake is a beautiful city. God never painted a prettier landscape than that seen from the crest of Capital Hill. The Wasatch range forms a perpendicular horizon, serrated and irregular, the black stripes showing on the mountain sides being in fact the mouths of yawning cañons. One old peak looms up with a dab of snow on his crown, which he wears jauntily to one side, like a night cap put on awry. In the distance the great lake gleams and glimmers in the sun, too beautiful to be real, giving to the picture all the mystic radiance of a mirage. You can mark the sinuosities of the river Jordan by the green ribbon of vegetation along the banks. Below you lies the quaint old city, its unique architecture showing through the foliage, which, in spite of gentle enterprise, still shadows the streets, and forms, in my opinion, one of the city's chief attractions.

Of course I did the town ; in a decorous, not decorative, manner. As I entered the tabernacle a man whose face had all the sanctimonious lechery of the Mormon elder you read about, was saying to a pale youth, a tourist like myself:

"The roof is a wooden truss, and is the largest roof of the kind in the world."

"Is it, indeed?" said the tourist. (I find that tourists are expected to make this remark.)

"The organ which stands before you was built, every pipe of it, in Salt Lake, and until recently was one of the largest in the world."

"Was it, indeed?" said the youth.

"The building is 250 feet long, 150 feet wide and eighty feet high on the outside, and the acoustics are wonderful."

"Ah, indeed," sighed the tourist.

"If you will walk to the rear gallery you will have an opportunity of testing the matter." Then observing me as I entered the door he instantly requested me to remove my hat. I apologized for any seeming irreverence and took my stand with the pale youth at a remote end of the building.

"Now are you ready?" Do you hear me whisper?" he asked in a sibilant breath.

"Very distinctly," said the pale youth.

"I hold a common pin two inches above the railing. Tell me if you hear it drop. There. Did you hear it?"

"Very distinctly," repeated the youth.

"Isn't it wonderful?" said the man.

"Wonderful, indeed," said the tourist. This ended the performance. In truth, the building struck me as being more shabby than wonderful. All the furnishings are of the commonest sort—deal benches, coarse matting, etc.—while the interior is destitute of decoration. The temple is immediately adjoining. Its erection was begun in 1853, and they are still putting away at it. The material is white granite, and nearly \$2,000,000 have thus far been expended. If it were a Federal building costing so much with no more to show for it, the whole thing would be denounced as a job. The architecture is odd rather than beautiful. Its chief characteristic is spires; not extraordinary or peculiar spires, but just spires. They stretch up like an extended hand, the fingers pointing in all directions. It is said that a tack means the most mischief when it points heavenward, and Mormonism does too, I reckon.

The same day I bathed in the hot mineral springs. Here the water from a natural hot spring is conducted into a tank and the tank covered with a shed. In consideration of a small sum you are permitted to gasp in this tank as long as you wish, but usually climb out of it as quickly as possible, looking like a canned salmon. When a fellow once gets parboiled there may be some fun connected with the experience. But talking of bathing, where is there in the world another Garfield Beach? In reality, Great Salt Lake is a young ocean which is lost, strayed or stolen, and finds itself in the absurd predicament of being without a tide, or a fish, or any of the prerogatives of an ocean, and too far from home ever to get back. Neptune must have used it for a salt cellar, for never was there anything half so salt. Lot's better half was simply fresh compared with it. Think of bathing in a liquid that has the laving properties of water and the density of quicksilver! You can't sink in it; I know,

for I tried it. But you can strangle in it; I know this also, for I tried it. If one were so disposed he might select some good, soft wave, draw his knees up under his chin, clasp his hands round them and sit there for a week, having his meals brought to him. It is worth a trip across the continent only to bathe in the Great Salt Lake.

One day I went in company with Nat Brigham and Wendell Benson to visit the Ontario Mine at Park City. By visit I mean that we were put into a bird cage and lowered fifteen hundred feet under ground. The sensation produced is worthy of description, but is really better imagined than described. Conjure up all the chilly, clammy, creepy, oozy, uncanny things you can think of, and clothe them in cimmerian darkness, and there you have it. As well explore Tartarus with a tallow candle.

Not the least pleasurable of my recollections of Salt Lake City is the acquaintance I formed with Maurice Barrymore. The Palmer Company were playing an engagement and were stopping at the Knutstord. The newspapers lauded Barrymore to the skies, and such of the company as I talked to seemed quite as enthusiastic. I finally asked one of them (a Mr. Harris) what there was about Barrymore that all the newspapers and actors conspire to praise him.

"Well, now, that's easily explained," said Harris. "In the first place, he *is* a good actor; in the next place, he is one of the loveliest, noblest, dearest fellows in the world. Then, too, he can whip any man of his inches in the country; and finally, he gets off more *bon mots* in a day than would run a humorous paper for a week."

"So? For instance?"

Harris scratched his head with a ruminating forefinger and then said: "You know when Barry goes into the Hoffman House café he is at once the centre of a coterie of gentlemen like Nym Crinkle, Howard, and fellows of that ilk. Not long since an English lordling happened to be one of the party, and he was giving America particular hates—a regular Dickens and Kipling excoriation. Oh! it was a bloody, blawsted, nawsty country, y' know. 'Why, y' cawnt even spell,' said he. 'L-a-b-o-r—

that's a nice way to spell labour, isn't it? H-o-n-o-r—that's a nice way to spell honour, isn't it?' And he glared at Barry as though he were personally responsible for the orthography of his country. Barry glared back at him for a minute and then drawled:

"'You are right, my friend; when it comes to a question of labor and honor 'U' don't count!'"

That night, after the theater, I suggested to Barrymore and Harris that I had a box of cigars in my room, and they had better come up and talk awhile. The invitation was accepted, and 6 o'clock the next morning found us still talking. After this set-to I am willing to concede that Barrymore is all his friends claim him to be.

From Salt Lake I retraced my way to Pocatello to take the Utah Northern, *en route* to Yellowstone Park. Bound for the same place was Judge Anthony, of Chicago, whom it would have given me much pleasure to have accompanied; but he had his ideas of getting into the park and I had mine, so we separated at Beaver Cañon. There was also on board a young Jewess, in the night of whose eyes there twinkled a starry radiance. She said she lived at Butte, Mont.

"And you?" she asked.

"I am from Omaha."

"Omaha!" she cried. "Are not the gentlemen from Omaha sometimes called Omaha-hogs?"

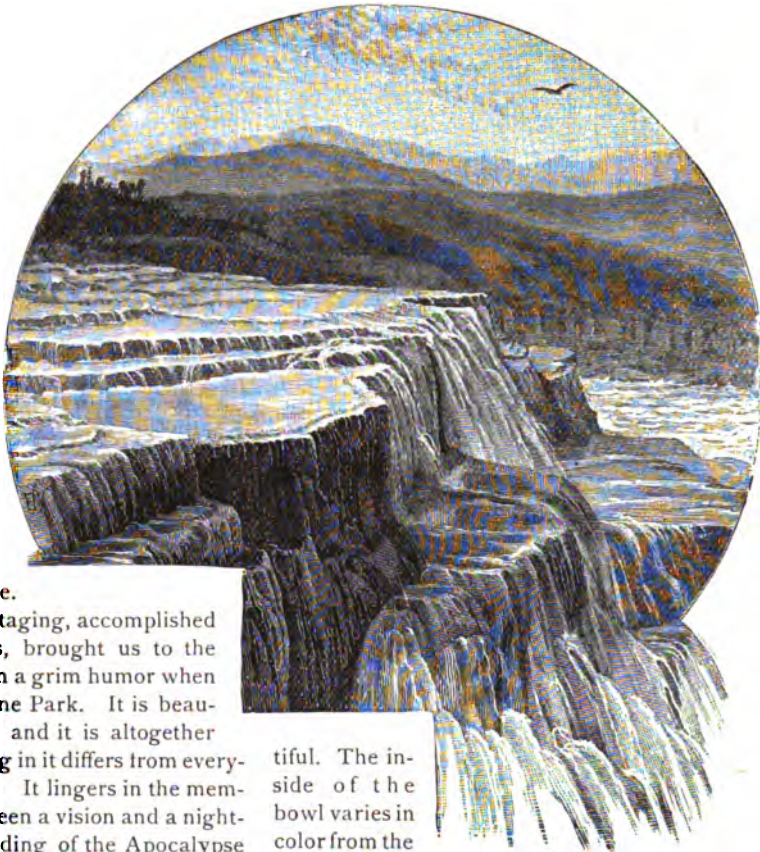
"Yes, madam; a most calumnious epithet. Now it would be infinitely more appropriate," and here I gave her a concentrated glance out of the left window of my spectacles, "if the ladies of Butte were sometimes called Beauties." She blushed and that's all she said. But didn't Omaha do the coals of fire racket in great shape?

This is perhaps a good time to remark that, until the Union Pacific company grow wise enough to build up to the southern boundary of the park, the only convenient way of getting into it is via Livingstone and Cinnabar. Judge Anthony had derived this information from some source and acted upon it. I was too loyal to Ben Barrow's literature, and got off at Beaver Cañon. The only other person to do

so was a farmer from Texas. As I stood sizing him up I confess that the prospect of having him as a *vade mecum* for the week to come was anything but alluring. He had been born and bred in Texas and had had no school advantages whatever. His voice was a cross between a whine and a drawl, and came somewhere from the top of his head. He always pronounced "er" "ah," and had certain peculiarities of dress not at all fashionable. He had acquired some money, by what Geo. Elliott calls the negative process of saving, and was spending it judiciously in travel. Further acquaintance, however, proved him to be a big-hearted, honest gentleman, and I would not take a good deal for the fun I have had with him, and often at his expense.

One hundred miles' staging, accomplished in less than two days, brought us to the park. Now God was in a grim humor when he fashioned Yellowstone Park. It is beautiful, and it is horrible, and it is altogether fantastical. Everything in it differs from everything else in the world. It lingers in the memory a sort of cross between a vision and a nightmare, a confused blending of the Apocalypse and the Inferno. The route via Beaver Cañon lands you *in media res*, that is to say, in Fire Hole Basin, the home of the geyser and the paint pots. Here the Fire Hole River, which outside the park is called the Madison, receives tribute from hundreds of hot springs and scores of geysers, and rushes onward as if anxious to escape. Think of a river, the size of the Pappio and ten times as swift, the water of which is sissing, piping hot. It was like standing by the river Styx expecting old Charon to beckon from the other shore. Hot springs are so numerous in all parts of the park that

they soon lose their novelty; and yet the first one I saw I gazed into for hours, fascinated by the nacreous, iridescent glow, "a painting in melted colors, as though heated below by a glory of mystic radiance." And the cup or crater that contains a hot spring is also beau-



MAMMOTH HOT SPRINGS.

tiful. The inside of the bowl varies in color from the most delicate pink to the deepest blue or black. The rim is formed by a slow deposit through which the waters trickle in devious channels, producing the effect of arabasque or vermiculated carving. Sometimes this deposit is heaped into a cone, as in the case of several of the geysers. Sometimes it takes the form of terraces, as in the Mammoth Springs, where there are terraces of magnesia perhaps fifty feet high and covering acres of territory.

The whole basin for miles around is en-

crusted with a similar deposit. The earth reverberates to your footsteps. You feel you are treading on eggs, and the impression is not lessened when you are informed that occasionally people do break through. Texas, in fact, had an experience of the kind. We were exploring alone, in pursuance to my suggestion that what we came upon unaccompanied by a guide would have all the charm of original discovery. Suddenly I heard a yell and then voluminous oaths peculiar to the Lone Star State, uttered, I am bound to say, more in terror than in malediction. I turned about and saw Texas floundering in a quagmire. Fortunately the water was not hot enough to burn him, and the only result was a pair of wet feet.

The paint pots are also a curious contrivance. Imagine a mortar bed some sixty feet in circumference, within which, in a constant state of ebullition, is being mixed the "putty" or finish coat of plastering, a portion of which, in one segment of the bed, has been colored pink. A rosette-shaped flower blossoms upon the surface, changes its form a few times, finally turns itself inside out and explodes with a sullen "pop." This is going on all over the surface. Occasionally a bursting bubble sends up a gobbet of mud to a height of several feet.

The ladies never tire of gazing at the phenomenon and of listening to the sweet familiar sound of pop, pop.

In the matter of geysers we were singularly fortunate. It was a gala day with them. More than a dozen turned themselves loose for our benefit, including all the most famous, except the Lioness and Excelsior. Those tourists who have not been so fortunate, however, need not be envious, for all geysers are alike, differing only in magnitude. A geyser in repose has the appearance of an ordinary hot spring. But, as you look, the waters begin to palpitate. There is a noise like a respiration. Suddenly the crater is emptied—the waters have been sucked into the bowels of the earth. Anon they reappear, this time nearer the top of the crater. The appearing and disappearing business is kept up for some time, when, with an indescribable rush and noise, the steam belches forth and the column of water shoots high into the air. I can convey no idea of the sensation

all this produces upon the beholder. There is in everything wonderful a subtle meaning, a mysterious something, an effluvium, in short, which is only appreciable through the sense of feeling, and feeling depends on contact. I may, perhaps, tell you what a geyser in action looks like. First there is the cloud of steam, which serves as a vehicle or atmosphere. It reels and topples and wavers in the wind, but rolls ever voluminously upward. At the core springs a dark shadow; it is the column of water. At its utmost stretch this column breaks and crumbles into beads, which pour down over all like spangled gauze. Of course it is beautiful, wondrously beautiful, and when a rainbow gets tangled up in it, as often happens, the effect is absolutely transcendent.

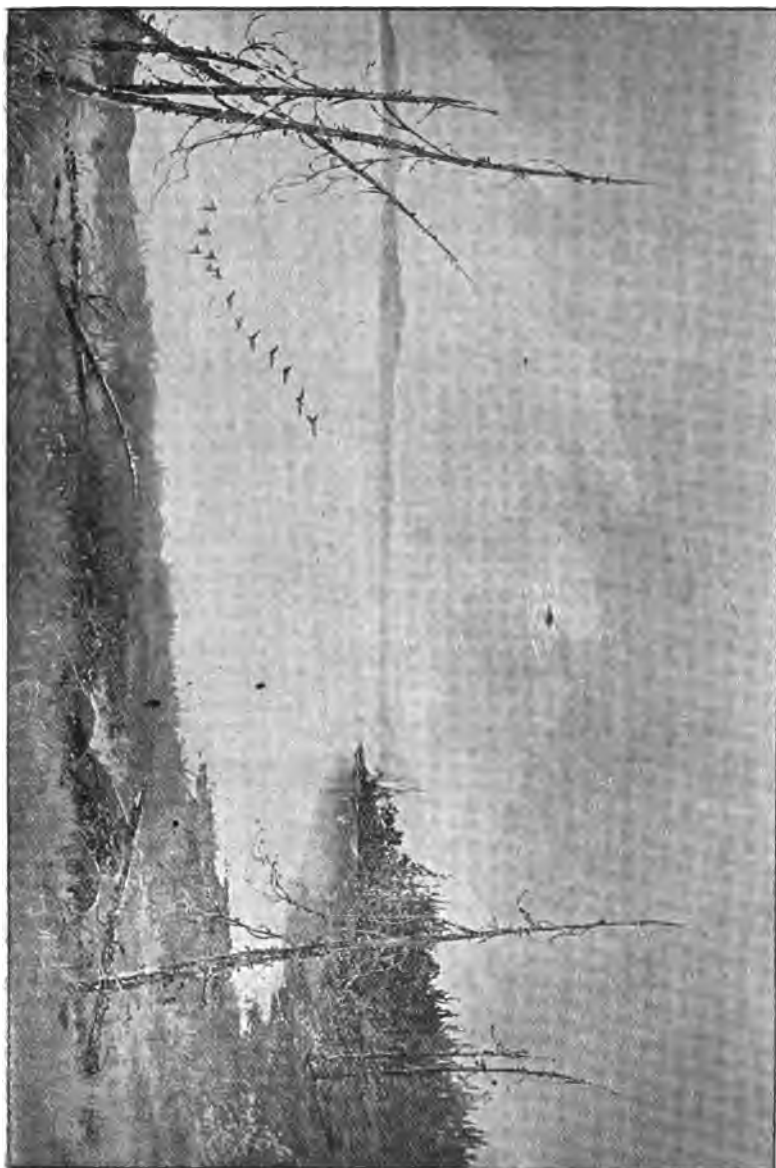
My friend from Texas was simply paralyzed the first time a geyser went off. He gazed vacantly around on the ladies and gentlemen assembled, and then solemnly, almost reverently, exclaimed: "This heah beats h—!" The ladies snickered, but a clergyman present looked at him reprovingly and said very gently: "You are mistaken, my friend, this does not beat the locality you mention. It only approximates it; it is an object lesson, a kindergarten exercise, as it were."

"What chu'ch did you say you belonged to?" asked Texas.

We had put in a profitable day, and early next morning were to start for Yellowstone Lake. Judge Anthony had driven in from Mammoth Springs the evening before, perched on a kind of tally-ho coach drawn by four horses. He was surrounded by a bevy of ladies who had elected him generalissimo and dictator of the party, and there he sat a veritable Sir Anthony Absolute. I confess I envied him. I offered to trade off Texas for his batch of ladies, but it was no go. At daylight next morning I bounded out of bed and, accoutred as I was, rushed into the adjoining room to wake up Texas.

"Hi, there!" I shouted, "wake up, Texas! The little dickey birds are calling to their mates; the little flowers are smiling in the sun; the little lambs are kicking up their heels; all Nature calls to thee—wake up, snakes!"

Texas sat up in bed, rubbed his eyes, blinked



YELLOWSTONE LAKE.



hard at me awhile, as though uncertain of my sex, and then broke into a loud laugh, so very uproarious that I really felt embarrassed.

"What ails you?" I asked.

"Whah (ha! ha!) whah (ho! ho!) whah did you get that gal's night geown?"

"That is my night gown," I replied indignantly. "Don't you wear a night gown?"

"No, siree, nor I never see a man wear one of them things afore!"

Now, wasn't Texas a daisy?

On the road to the lake we paused to visit the mud geyser, to my mind the most horrible thing in existence. The mountains at this point came down almost to the bank of the Yellowstone River. A short distance up the side of one of these mountains is a pit, possibly fifty feet deep and forty feet in diameter. In the bottom of the pit, extending no one knows how far down, is a bed of the softest, blackest, nastiest mud imaginable. Forever and ever this mud tries to choke up a hole, which, like the throat of some monster, yawns at you from one side of the pit, and which, in a state of repose, would be quite hidden from view. The mud pours into this throat and is spewed out again by the monster, who groans as if the retching were not altogether painless. The groans are accompanied by puffs of sulphurous steam, that might be the fetid breath from the monster's lungs. (Pardon me. I am describing it as it seems.) Nothing discouraged, the mud rushes back into the chasm. You hear the struggle for breath, the gagging, gurgling spasm of suffocation, and then, with a bellow of rage, the monster spurts the mud in all directions—tons of it lifted into the air! The spectator starts back in holy horror, but there is really no occasion for alarm. As if the excavation had been made purposely to confine the creature imprisoned by it, the mud is lifted to the very verge of the pit, but never over it. And this struggle has been going on every moment for centuries and is destined to go on—how long? There was a devilish fascination about it; I was seized by an impulse to jump in and take part in the performance, and as a counter attraction had Texas hold me by the coat tail. But talk about the eternal punishments of mythology—or theology, for that

matter! Why, I had rather be Sisyphus and roll a stone; a tumble-bug and roll manure; a chewer and roll a quid; a dude and roll a cigarette; a Dutchman and roll my r's—Walla Walla! I had rather be a high-roller of most any description than spend eternity rolling back that muddy flux.

I had scarcely entered the hotel at Yellowstone Lake when I was accosted by several gentlemen who remembered to have met me in Omaha. One of them proved to be Lieut. Hiram Chittenden, who has in charge the construction of roadways in the park. It was a fortunate meeting so far as I was concerned, for it led to an invitation to join a military party on an excursion to the "thumb" next day. I should explain here, perhaps, that some person with a too vivid imagination once discovered a resemblance to a human hand in the configuration of the lake. Two or three of its ramifications are marked "fingers;" one, shorter and broader than the rest, is called the "thumb." On the map this thumb has the appearance of having been hit with a hammer or afflicted with a felon. It is a genuine baseball thumb.

The excursion was a success. The trip in Capt. Water's steamer was delightful, and the trout fishing the best in the world. You can't help catching fish, for the lake is fairly breathing with them. Now, Yellowstone Lake is remarkable for several things. It is beautiful, to begin with—tranquilly, rationally, simply beautiful. If, before he got there, a person had not grown to expect things to go up with a loud whang, he would be content to sit down and study the picture. Then, too, it is the largest lake in the world having an equal altitude. I have forgotten what its size and altitude really are, but am willing to leave it to any fair-minded geography. There are occasional hot springs, particularly around the thumb, within a few feet of the shore. A fisherman, therefore, by a simple twist of the wrist, may haul in his trout and cook it on the hook. This phenomenon has given rise to a wild legend that the lake has a hot and cold stratum of water; that fish are caught in the cold or lower stratum and are cooked in the upper, *in transitu*, as it were; and that, instead of catching live trout, you really catch salmon already canned. I

only mention this for the sake of giving the weight of my name (for veracity) to its contradiction. From the lake to the Grand Cañon and falls the road skirts the river, and is about the only drive altogether enjoyable. Even this trip would be enhanced if made by boat down the Yellowstone. It was nearly sunset when I leaped from the vehicle, and, without going into the hotel, scrambled down the path leading to the falls. A

huge rock projects over the falls, across which some one has considerately erected a rude barrier. I stood upon this promontory and looked about me. The sun had left the gorge, and a soft, mysterious, crepuscular light bathed crag and peak. Here was the culmination of wonders. Here was the final, ultimate expression of the beautiful. I knew it then, as I stood there with bated breath, my whole soul ex-

haling in unconscious adoration; I know it more than ever now, as the scene comes floating across my memory, utterly effacing all that I have ever seen of the Almighty's handicraft. I was grateful to be alone, for no one, except the best beloved, can share the speechless enthusiasm of such a moment, and then only by a fervent pressure of the hand. However it was done, by what divine alchemy it was accomplished, God only knows; but at some time a rainbow has shattered itself against these rocks and so been lithographed. Think

of every conceivable color, and every conceivable shade of every color, and then of mountains steeped in all these colors from base to summit! Not garish nor kaleidoscopic—ah! no—and here comes another mystery. Softer than the velvet on unformed antlers, softer than the down on a ripened peach, soft as the bloom on a maiden's cheek, these colors blend and vanish, deepen and fade, melting into each other like light in light.

The Grand Cañon is a petrified sunset. Joseph never had such a garment as nature has given to these chalky cliffs. And around these cliffs, which jut out, one beyond the other, like fly-wings on a stage, the river rushes and coils, green as a lizard. Immediately in front of me was the brink of the falls. The waters here divided into three emerald strands, which only began to braid together



A GLIMPSE OF THE GRAND CAÑON.

ere they blossomed into foam that flung itself headlong into the abyss. How far did it fall? I was curious to know, and so, catching firm hold of the railing, craned my neck beyond the verge. Holy Moses! I started back, every fibre trembling in affright. What had I seen? I scarcely know. It was like gazing into the burning bush, into the secret places of the earth, into the arcana of heaven. I remember that it was so high, so very high, that my eyes swam in their sockets and seemed to drop out of my head. It was so white, so very white,

that it seemed itself a source of light. I saw an eagle poised midway in the air—think of it! Higher than the eagles! But that is nothing. Out near Inspiration Point there is an eagle's eyrie so far below that you have to take glasses to count the young ones in the nest.

We did not visit the petrified forest, because it is only accessible on foot or horseback. I regretted it, too, for Texas had somehow learned that in this forest there is a petrified tree, on which there is a petrified limb, on which there is a petrified bird singing a petrified song.

Now, before quitting the park I wish to make a few observations on things in general. The present mode of locomotion through the park is irksome and monotonous. To drive thirty or forty miles each day and spend the few remaining hours of sunlight in climbing around, is too much like sawing wood—a pastime for which most of us have an instinctive disrelish. It is too slow one way and too rapid another. You are not given enough time at points of interest, most of the time being squandered in getting there. The general scenery does not compensate for this drudgery. The mountains are not so very high, and few of the passes are strikingly picturesque. To be sure there is a dense growth of timber, but it is all of the scrub pine variety; too much like telegraph poles to be pleasing and too toothpicky to be umbrageous. Besides, a coach and four is expensive. I fully appreciate the solicitude of our government to keep out steam cars and to preserve the primeval appearance of things, but an electric motor line is no more civilized, and not half so fashionable (making fashion the gauge of civilization) as a tallyho coach. Electric locomotion would be noiseless, rapid, cheap and entirely practical. I was glad to hear Lieutenant Chittenden say, after all his experience in the park, that he was entirely of my opinion and had already determined to embody the idea in his report to Congress. His opinion is further confirmed by that of Captain Anderson. I wish also to record another kick. Except at Mammoth Springs the hotel fare is wretched; canned milk, canned soup, canned meat, canned beans, canned fruit, canned everything! And for this you pay \$4 per day.

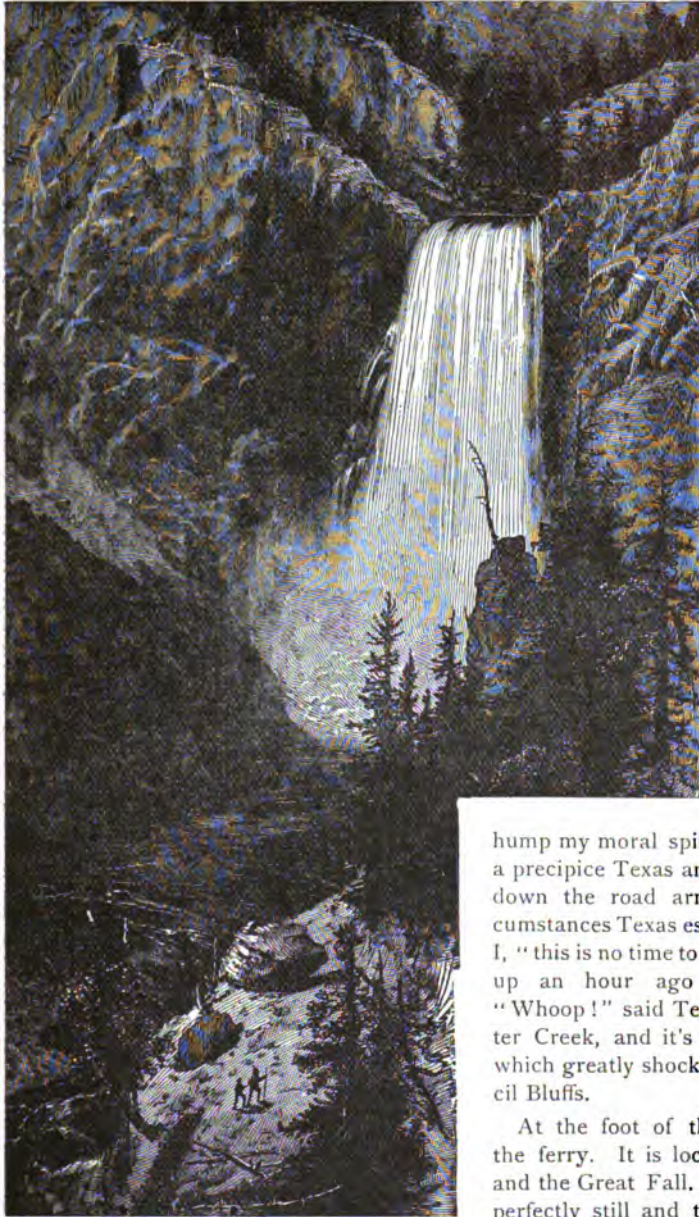
The excuse is that transportation costs so much, which is another reason to cheapen transportation.

Kick number three. The legislation for the park is all in the interest of the Northern Pacific. Any tourist can see that with half an eye. It was even hinted to me that the park appropriation bills were drawn up by the Northern Pacific attorneys, who designated in the bills where and how the money was to be expended. Recently twenty miles were added to the park on the south, not because there is anything in the new territory worth seeing, but because it puts the Union Pacific Railway twenty miles further off from the main features of interest. I don't know why I should complain of this, except as I am more interested in the Union Pacific than in the Northern Pacific Railroad Company. Now, the wonders of the Yellowstone should come to the beholder in a grand crescendo, commencing at the most usual and ending with the most unusual phenomena. Here is a programme that would be perfectly ideal, and particularly Union Pacificish: Enter the park from the south. Have an electric car meet you at the southern boundary and land you at the "thumb" of Yellowstone Lake. Take the steamer and explore the lake. Descend by boat to the falls; from the falls take a motor to the petrified forest; thence to the Mammoth Springs; thence to Geyser Basin; thence back to the lake, where you would relish spending a week thinking over all you had seen.

Our next stop was at Shoshone Falls. Here is another of the world's greatest wonders about which the Union Pacific brags a good deal but is too indolent to spend a few dollars to get you there conveniently. It involves a stage ride of thirty miles through volcanic rock and sage brush. In the day time this ride is blistering and dusty, and in the night time it is lonesome and dusty. We arrived at the village of Shoshone one night at 10 o'clock, and, through my insistence, took the stage at once for the falls. I had been put on to this and several other schemes by a Mr. Lee, whom I had casually met on the train, and who for years had been general Western passenger agent of the Union Pacific road. Beside Texas.

and myself the only other passengers were an old gentleman, who owned a farm in the vicin-

driver. The night was gorgeous, the air just nipping enough to make the prospect of a warm



FALLS OF THE YELLOWSTONE.

ity, and his niece, a young lady from Council Bluffs, who was spending her vacation on her uncle's ranch. I mounted the box with the

bed very beguiling. Who could help singing on such a night? Gad! I bellowed to the top of my lungs as we bowled along, until the wolves caught up the refrain like an antiphonal choir. Finally my nose got cold and I lit a cigar to warm it. Our driver was a most extraordinary young man—that is to say, most exemplary, which is always extraordinary in a stage driver. I offered him a cigar, which he declined with thanks. I then offered him my flask, which he likewise declined. "Don't you drink or smoke either?" I asked. No, he did not. He had done both until two years ago, when he concluded to knock off, and had stuck to his resolution with no seeming effort. "Young man," I cried, gazing admiringly at him in the dark, "I wish you would teach me how to

hump my moral spine like that!" At the crest of a precipice Texas and I dismounted and stumbled down the road arm in arm. Under these circumstances Texas essayed to sing. "Texas," said I, "this is no time to sing. You should have piped up an hour ago with me and the wolves. "Whoop!" said Texas, "I am a coyote from Bitter Creek, and it's my night to howl!" All of which greatly shocked the young lady from Council Bluffs.

At the foot of the precipice we came upon the ferry. It is located between the Twin Falls and the Great Fall. The water at this point is perfectly still and the boat is guyed to several wire cables, so really there is no danger. But, for all that, the certainty of what would happen in case of accident makes the transfer full of anxious interest. The hotel is not far from the



landing, and in a few moments we had roused the proprietor, and in a few moments more had piled into bed—precisely at 3 o'clock in the morning. Now the hotel is located on the very brink of the falls. The mighty roar of waters is all-pervading, circumambient, like an atmosphere of sound. As I lay in bed, listening through the dark, I could catch a deeper tone than the universal note to which the waters were attuned. It came like the sullen boom of far-off cannon, and seemed to reverberate in my heart rather than in my ears. Perhaps it was the heart of the waterfall calling to its human fellow. There was a rhythmic throb that shook the building and rattled the window sash. I could feel the bed vibrate beneath me. It was great. It was colossal! I felt myself grow to the limits of my environment. Who would not be a Titan, rocked to sleep to a so majestic lullaby?

After a late breakfast next morning we sallied forth. Most everybody has seen Niagara Falls. Well, as a mere matter of comparison, Shoshone Falls are much more wonderful. In the first place, they are one hundred feet higher than Niagara. Then the *crevasse*, through which the Snake River runs at this point, is one of the *grotesqueries* of Nature. A long time ago hell yawned so wide as to show its back teeth; so wide, in fact, as to get the lock-jaw. And this immutable agony is Shoshone Gorge. It makes your face ache just to look at it. Near the falls is a little grotto called Locomotive Cave. Standing at a particular angle in it, you seem to hear a locomotive coming toward you, choo-choo-ing at a great rate. It is a pretty grotto, that might be the antechamber of a naiad's palace. So it has evidently been regarded, for visitors have left their cards stuck up all over it. Of course there are some disagreeable saws about names appearing in public places. But it should be observed that this cave is not a public place; it is, in fact, a most out-of-the way place. Beside, only a visiting card is left, which is no mutilation. I offer this as an apologetic preface to the further statement that the name of yours truly may be found on a certain card, immediately beneath that of a young lady from Council Bluffs—but for goodness' sake don't tell my wife.

There may be some one unacquainted with the fact that Shoshone Falls are owned by Mr. E. M. Stone and the estate of his late partner, Mr. Charles E. Dewey. How the Government ever permitted these stupendous natural wonders to pass into the possession of private individuals is beyond my comprehension. But it is fair to say that the present owners have not attempted to make money out of their enterprise, and, indeed, have expended large sums with no hope of return. We put in the whole day at the Great Fall and Twin Falls, five miles above, and I recall no feature of my trip more absolutely enjoyable. Next day we drove back to the station by way of Blue Twin Lakes. These are pretty ponds of water, one lying a trifle higher than the other. There is a constant flow from the upper into the lower lake, but no apparent outlet from the latter. Here is a mystery. I am quite willing it should remain one.

I had been advised to go from the Dalles to Portland by boat. To do this I was obliged to stop over Sunday at Dalles City. I put up at the Umatilla Hotel. I mention the name of this hotel chiefly that you may set it in your prayers, for if there is anything needing praying for more than another (except it be its guests) it is the Umatilla Hotel. I never supposed such cookery possible. Eating is reduced to a necessity; deglutition to a heroism. I was told that the other hotels were infinitely worse. While I knew this to be impossible, still it determined me to cling to evils, etc. It was evident that the Dalles was a culinary Sodom and Gomorrah, and I was not surprised to learn that it recently met the fate of Sodom and Gomorrah and was burned to the ground. It was at the Umatilla Hotel the following dramatic incident occurred:

Waiter (to guest of one meal's experience, who is about to seat himself at a particular table)—Hold on there, mister! That is Dr. So-and-so's seat. He has sat there for four years.

Guest—What! Has Dr. So-and-so boarded at this hotel for four years?

Waiter—That's what.

Guest—Well, well! That knocks Dr. Tanner's record higher than Gilroy's kite.

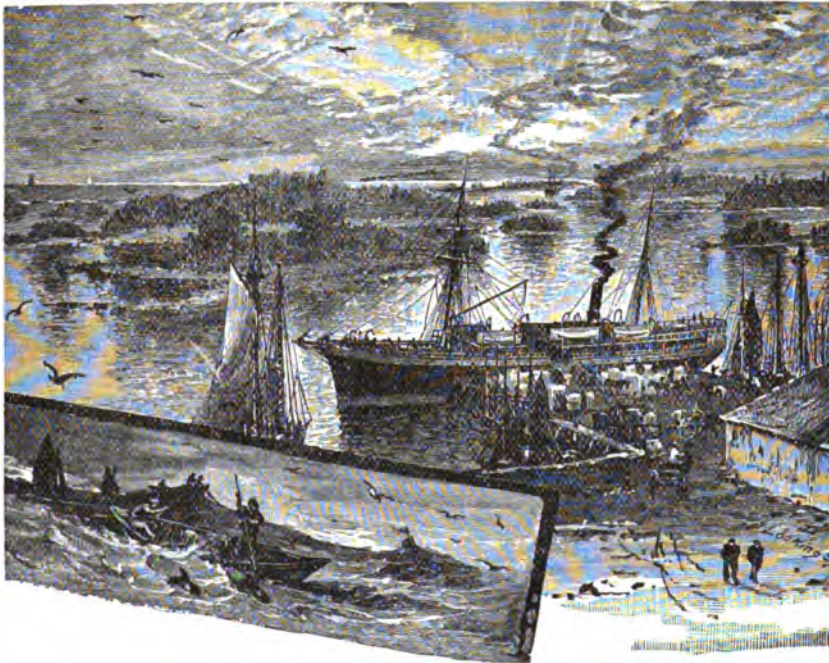
My stay at the Dalles was not altogether

without benefit, however, for it made me acquainted with a young gentleman by the name of Morse, nephew of W. V., S. P. and A. D. Morse, of Omaha. We cottoned to each other from the start, and his proposition to accompany me as far as Portland was greeted with tumultuous applause. Accordingly, we boarded the boat Sunday night, and upon waking up Monday morning found ourselves fairly under way. The day was just what a day should be for just such an occasion—a breezy, sunny,

conditions can, at least, *feel* the poetry of Nature, which is better yet."

"Right you are, my sensitive plant," said Morse. "Have a cigar as an aid to feeling." So we smoked and were silent.

Nearly every object along the shores has its distinguishing name, but blest if I can remember one of 'em. I only remember that it was all beautiful, and that a catalogue of names could add nothing to the effect. On either side the mountains rolled back, Ossa upon Pelion,



SITKA HARBOR.

smily, happy day. We got into the very angle of the prow, and dangled our legs over the sides, and straddled the capstan, and lay on our backs, and kicked up our heels, and did everything but stand on our heads. The bosom of the river had absorbed the sky, and we seemed to float between two firmaments.

"Ah!" sighed Morse:

"My soul to-day  
Is far away,  
Sailing the Vesuvian Bay—"

"Chestnuts; none of that," said I. "A man who cannot utter his own poetry under such

till they culminated in snow-clad peaks that glittered in the distance. Here the grass and flowers crept down a gentle slope to see themselves reflected in the water. There a palisade, a frowning bastion, toppled on the verge. There were granite parapets that no human force could escalate, and so they had been tunneled to accommodate the railway trains which whizzed past us, now and then, like a new variety of comet. Everything—earth and sky, air and sunshine, river and mountain, flowers and snow caps, shaggy rocks and shadowy forests—it was all a dream of Nature,

which only the wizard pencil of the great Dore could half interpret.

A certain portion of Portland is given over to the Chinese. I attended a Chinese theater one night, and since the Lord suffered me to escape I have resolved never to go into another. It was the most eerie, leary, dreary hole I ever crawled out of. The performance is as monotonous as a piano recital, and lasts till the crack o' doom. The singing (God save the mark!) is accompanied by a fiddle with one string and the tam-tam of a drum without resonance. Even the dialogue is punctuated by these erratic instruments, which strike in when you are least prepared for it. Of course the music and dialogue are both improvised, for it is incredible to believe that all that gabble has been written down and laboriously committed. The audience interested me more than the performance. As I gazed around on these dwarfish, elfish creatures, their pig tails and shirt tails hanging down their backs, their eyes all askew, twinkling like beads, I felt as though I had been caught in a trap with a lot of rats. Occasionally their faces would be puckered into a smile as inscrutable as their chirography. I wondered if the coquettish actress with the eloquent fan had perpetrated a joke. A Chinese joke—think of it!

I spent several days in Portland, impatient to begin my Alaskan trip; for, unsophisticated as the confession stamps me, it was to be my first experience on an ocean steamer. At last the day dawned—or rather the night fell—at all events, the time arrived, and I hastened on board the good ship ("good ship" is a nautical expression, meaning steamer) City of Mexico. As I stood on the burning deck, surrounded by my luggage, I accosted a young man who proved to be chambermaid plenipotentiary, and asked him to conduct me to my stateroom. He flung open the door of a fair-sized closet that would have delighted the heart of any housekeeper. It had three good-sized shelves, as shelves go, and a number of clothes hooks. Yes, I said, that closet would do very nicely; I thought I could manage to store my bundles in it and still have room to hang up my overcoat. Now would the young man please show me the stateroom to which the closet belonged?

"This *is* the stateroom," said he.

"Oh! no. You don't mean it. Why, the agent said I was to have two other room mates. Where are they to go?"

"Right in here," said the steward.

"Suffering old man!" I gasped. "Three human beings slid in on those shelves like mummies in a crypt—like pies in an oven? It can't be did!"

Now I remember when Fred Nye edited a column in the Omaha *World-Herald* called "The Public Fountain," I once called at his sanctum purposely to remark that it was very appropriate for a fountain to be run by a squirt, but the joke was all knocked out of me when I opened the door.

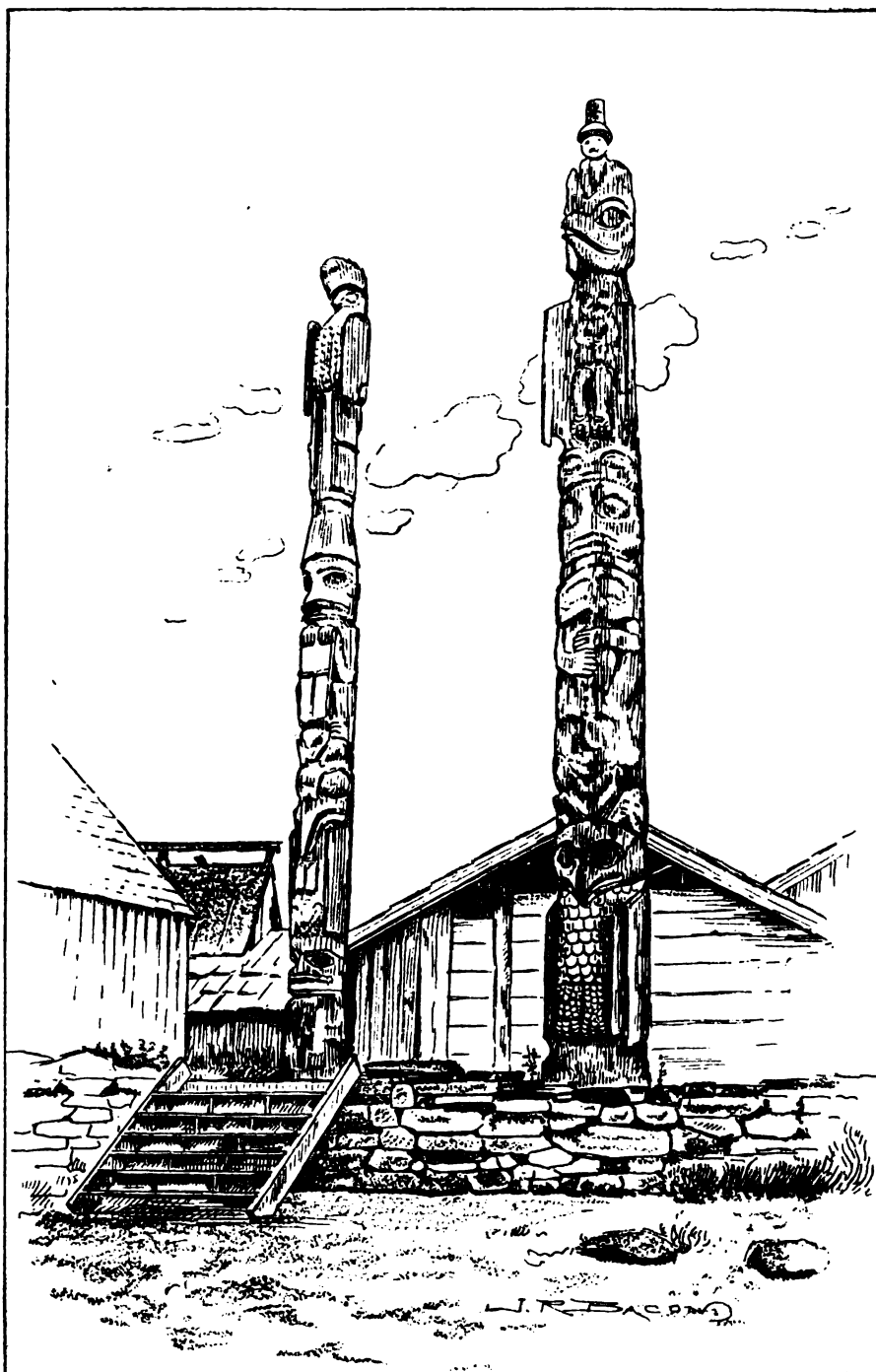
"Why, Fred, these are awfully small quarters," I said.

"Quarters!" growled Fred, "these are not quarters; they are only eighths."

And yet Fred's eighths were as space to an ant hole compared to my stateroom. But what is life but adaptation to environment? So I adapted.

From Portland to Tacoma myself and a party from Galena, Ill., were the only passengers. Here we were joined by numerous others, including my fellow sardines, to whom I extended the hospitality of the stateroom. There were eighty of us in all, some of us celebrities, some of us no entities, all of us good-natured and resolved to please. It was an idea commonwealth. When Shakespeare wrote, "Strange that our bloods of color, weight, and—and—something poured all together would quite confound distinction, yet stand off in differences so mighty"—he had not seen us. There was not a blood amongst us wanted to stand off. The head steward was the only person whom we tried to stand off, and him only for cigars. Now the inspiring cause of all this concord was Captain J. C. Hunter, whose affability is only matched by his discipline; whose truly Christian benevolence is only equalled by his truly heathen profanity—one of the grandest, gruffest, jolliest fellows in the world. We told him so, too, before we quit him, and put our opinion in writing, and backed it up with a substantial reminder.

If Alaska lingers in my memory as something more than "a very ancient and fish-like



TOTEM POLES.



smell," it is owing altogether to the happy circumstances under which I studied it. I have seen 2,200 miles of its coast and not a single feature to attract immigration and permanent settlement. The killing of seals lasts but a short time each year; the catching and canning of salmon only a season, and with the exception of Treadwell Mine on Douglas Island, there have been no mineral discoveries worth developing. As for the Indians, those squat, long-armed, bow-legged, blear-eyed consumptives, they are so wedded to putrid fish that to put them on a Christian diet is equivalent to manslaughter. No sooner are they nicely civilized than they up and die. If there are any portions of Alaska fit for agriculture nobody seems to know where. It would be worth the while of our government to offer proper inducements to experiments in this line. But thus far the policy seems to have been singularly unfortunate, not to say idiotic. For instance, the general land laws relating to homestead and preëemption have not been extended to Alaska, although the citizens of the territory have been clamoring for them. Now, were it left to me, I should unhesitatingly say if anybody wants to become the unhappy owner of Alaska soil, for Heaven's sake let him!

It rains here, I should judge, most of the time. I do not think we saw forty-eight hours of uninterrupted sunshine. I asked an old-timer if this was their rainy season.

"Oh, no, not pertik'ly," said . e.

"Well, then, what month does it rain the least?"

"Well, I guess maybe Febu-ary. It only has twenty-eight days."

The clouds are so soggy and discouraged that they have ceased trying to soar upward and simply roll on the ground. This thing of having clouds kicking around under foot, in the way of pedestrians, is quite annoying. I shall never envy an angel and his nimbus again; it merely means a cold in the head. However, when a person once becomes acclimated, that is to say, when his web feet have fully developed, he can paddle around and see a good deal to interest him. I have already described the trip from the Dalles to Portland. Well, the scenery from Victoria to Chilcat is

but a repetition of a trip down the Columbia. It is a superlative beauty which almost grows monotonous. Seldom, if ever, are we out of sight of land. Often we squeeze through narrows within a stone's throw of either bank. Our two English ladies, who spent last season in Norway, say the archi, elago' reminds them very much of the fjords. Now, I had always imagined that the distinctive feature of a fjord was the letter j, and am pleased to have more definite ideas on the subject.

I refrain from describing Tacoma, or Seattle, or even Victoria, though there are some peculiarly British traits about the latter place which give it a sort of interest to a foreigner. Nanaimo is also too civilized to be interesting. There are magnificent coal mines here which are being amply developed.

The real object of the trip begins to be realized at Wrangle. Here you can see any number of natives in the most approved style of wretchedness and squalor, and in every stage of sore-eyed, weak-lunged, bandy-legged, delightful barbarism. The women blacken their faces and wear fish bones in their visages. The men live mostly in their canoes and catch salmon with spears. Their huts reek with filth and vermin, and an unusual noise, such as a steam whistle, calls forth a latent population of wolfish-looking dogs, that howl dismally in unison. There are also genuine totem poles at Wrangle. It was the word "totem," I think, which induced me to go to Alaska. What there is in the word to arouse an insatiable curiosity I have not even yet discovered. But having incidentally heard that there was on the face of the earth a people who had a totem pole, I knew that life would be unendurable until I had not only seen the people, but beheld the pole.

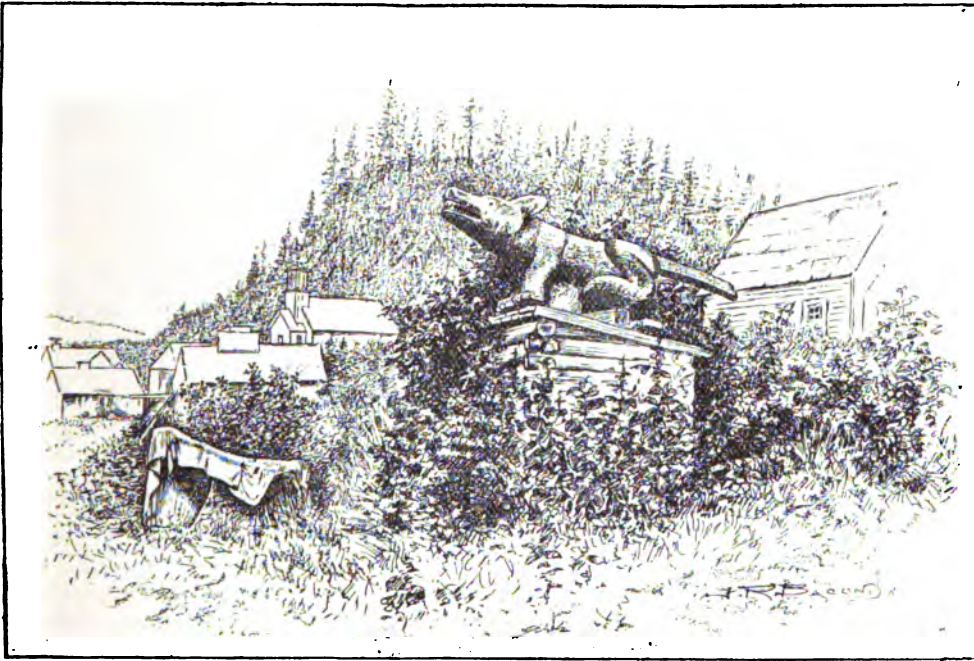
This particular purpose of my existence having been accomplished, I can truthfully say that, like most other sordid objects in life, the totem pole is a fraud.

What is a totem pole? It is easily described. A log, perhaps fifty feet long and two feet in diameter, is simply taken and carved into designs grotesque enough to make a Chinese god resign his office. These designs represent all kinds of animals, and all sorts of faces, in all

sorts of distortions. When it is made as hideous as a benighted imagination can well accomplish, it is taken by the delighted owner and stood up before his front door. Those at Wrangle bore evidence of having once been painted. What is a totem pole for? That is more difficult to ascertain. What is anything for in this vale of tears? We all of us struggle along with rather vague notions as to aim or goal, and such objects as we attain to seem inadequate to the effort put forth to grasp them.

*plume* after the manner of the North American Indian, such as Young-man-afraid-of-his-mother-in-law, but the name of some animal, such as wolf, bear, whale, fox, deer. If a fox should marry into the family of a wolf the totem pole would record the fact. Now if a bear should marry a whale and they should beget a little menagerie of their own, I really do not know what would happen.

Yes, gentle reader, for the sake of flaunting a wooden nightmare in his front yard the for-



FORT WRANGLE.

Does not experience, as well as religion, teach us that all worldly objects are simply fads, foibles, baubles, kickshaws—totem poles? To the aboriginal mind totem poles represented an aspiration in life. Only the aristocracy could afford them, and it is not altogether a heathen longing to be one of the Four Hundred. Some of us have a genealogical tree of which we are very proud. The totem pole is a genealogical stump; it contains a family history in bas-relief. When a man attained a sufficient prominence in his tribe he would assume a name—not a hyphenated *nom de*

mer Alaskan would tug and sweat and groan and travail, only to die and leave it—a monument to his heathenish fatuity. See to it that thou, too, are not laying up for thyself a totem pole.

We did some shopping at Wrangle. A native would sell his immortal soul if you allowed him to put his own price on it, but that price would be out of all proportion to the intrinsic value of the article. A "doyla" is the smallest denomination in money of which he has any conception, and I would not give a dollar for a whole native, heart, soul, gizzard and other

giblets thrown in. It is altogether useless to cheapen a commodity; you can take it or leave it—money is no object. At Sitka I attempted to negotiate with Princess Thom for the purchase of a wooden fork. Princess Thom is an old hag who is said to have \$5,000 or \$6,000 in bank and five or six husbands in stock. I admired the carving on the fork and was willing to pay a reasonable price for it, but it was no go. I called her attention to the fact that one of the tines was broken; still no go. Finally one of the party suggested that I make love to her. I acted on the suggestion. Clasp my bosom and rolling up my eyes, I assumed a troubadour attitude and offered her my heart and hand in exchange for the carving. I really think the old girl was touched—sentimentally, that is; for while she seemed quite willing to add me to her assortment of husbands, the fork remained a purely business transaction.

After Wrangle, the next stop of importance was at Juneau, the metropolis of Alaska. Most of the inhabitants work in the Tredwell mines and stamp mills, which are located on an island immediately opposite. They are a tough-looking lot of citizens. About four miles west of Juneau there are placer mines of some consequence. I selected a good, sloppy, rainy afternoon, and walked out there to investigate hydraulic mining. This system of mining, of course, is not peculiar to Alaska, so I refrain from describing it. The experience, however, was both novel and instructive, and the scenery—oh! well, if I were to describe all the beautiful scenery in Alaska, this letter would be a grand *te deum*.

At Killisnoo we anchored one Sunday, when was presented the opportunity of paying my respects to Killisnoo Jake, a local celebrity of more than average interest. He was formerly the most savage of his tribe, but, having been punctured with divers and sundry bullets, he suddenly concluded to become civilized, and now hobbles around, a sort of animated arsenal, liable at any moment to explode. Formerly, also, he was rather numerously married, but, having joined the Russian Catholic church, it became necessary for him to sort of unmarry, so he put away all his wives except the youngest, whom he beats and cudgels with true

Christian fervor. Jake's idea of civilization, like some other folks' I know of, is raiment. He has a most extensive wardrobe, ranging from a full military uniform to a linen duster. These costumes he wears according to caprice, and with a lofty disregard to the weather. As the boat hove to I saw him upon the wharf, resplendent in a plug hat and smoking jacket. I introduced myself as an emissary of the President of the United States, sent to do him homage, and was received with a patronizing courtesy that made me feel how humble was the government I represented.

In due course of time we came to Sitka, the capital of Alaska, and by far the point of greatest interest. It is filled with reminders of Russia's former ownership. The castle is a relic of court splendor, and the Greek Church has gold and silver trappings and pictures of considerable merit. It is even claimed that one of the Madonnas is a genuine Raphael, valued at many thousands of dollars. Of course I do not believe that Raphael ever saw the picture, but I paid fifty cents for the sake of looking at it, just the same.

The only approach toward society life is found in Sitka. The Federal officials, including naval officers, the teachers at the missions and the representatives of the Alaska Trading Company, have formed a close corporation, to which only those of a certain mental and moral culture are admitted. They really have good times and a high order of entertainment. Judge Bugbee and a Mr. Hayden have written a book of verse called "Alaska Poems." I was presented with a copy of this pamphlet and read it with much interest. The verses of Judge Bugbee have a very musical jingle and are quite humorous, while some of Hayden's efforts smack of the true afflatus. The missions here, under the Presbyterian board, are altogether the most flourishing of any in Alaska, and have accomplished an amount of good almost incredible. They have schools, and churches, and hospitals, and workshops, and a museum of Alaska curiosities well worth a day's examination. The pupils were having their usual vacation when we arrived, but Superintendent Kelly volunteered to round up as many children as possible that evening, if we were sufficiently

interested to attend their exercises. Most of us were there, and the occasion was one to be remembered. A portion of the evening was devoted to an exhibition of the students' accomplishments—singing, recitations, etc. I cannot say that *per se* it was very amusing; pigeon English seldom is. But, as Dr. Johnson once said of a dancing dog, "His dancing is not well or gracefully done, sir, but the wonder is that it should be done at all, sir."

not remember what they said; in truth it was mostly uttered in so low a tone as to be scarcely audible. But the soft, mellow voices, rich with passion, tender with pleading, were prayers in themselves. To what shall I liken the supplications of these lonesome, friendless creatures, the prayer of a barbarian to a civilized God? It was like the inarticulate moan of a stricken animal; the trembling cry of a ewe lamb bleating for protection; a wail



ALASKA CANOE.

The meeting was finally resolved into a prayer meeting conducted by the children themselves. Most of us are not partial to this kind of religious service, possibly because we hear at them so little of real praying. I feared that this one was to be a part of the "performance." Had I detected a suspicion of hypocrisy in the children's voices; had there been the faintest element of "show off" in what they said, or their manner of saying it, my lip would have curled instead of trembling. But no, it was all genuine and earnest, with a total unconsciousness of another's presence. I do

rom the desert; a voice out of the night. We returned to our boat thankful for the warm spot that glowed in our hearts and the moisture that suffused our eyes. Is it worth while trying to redeem the Alaskan? Let that evening at the mission answer the question.

We stopped at various canneries before heading for Glacier Bay. These odoriferous institutions are numerous, and the aggregate output something enormous. Some of them, notably at Wrangle, are clean and wholesome, but most of them are filthy and smell to heaven. Whether the supply of salmon will be ulti-

mately exhausted seems to me a grave question. Either the owners of these fisheries are ignorant of the salmon nature, or the Encyclopedia Britannica is off its base. I read up on salmon before I left Omaha. If I remember my authority correctly, it claims a salmon was originally a trout that became addicted to salt water, just as the jolly tar does to "bilge water," and that this species of intemperance had been transmitted. But that by an irresistible instinct these overgrown and degenerate trout retire to fresh water to spawn. Now, this proclivity, this home-sweet-home tendency, is well nigh thwarted in Alaska. Across the mouth of nearly every river there is a barricade in the shape of a net, which prevents the fish from gaining access to the fresh water. Beside nets, there is in use every other device for catching fish, the most singular being the fish wheel, turned by the current, into which the salmon run and are thrown upon the shores. Again, there seems to me a profligate waste of raw material. In some places the ground is strewn with fish that have been caught and cast away to rot. Here is a matter which I think the Government would do well to investigate.

One night the captain announced that early on the morrow we should behold the great Muir Glacier. Already we had seen quantities of floating ice, and the near prospect of icebergs and glaciers occasioned great excitement. Now, the word "glacier" seems like an innocent combination of letters, but suppose you try to pronounce it. The English ladies call it glass-ear. Another party spoke of it as gla-seer (long a). The dude pronounced it glawsher. The man from Denver called it glazier. Others mentioned it as gla-ci-er, and so on through the gamut of possibilities. We divided into factions; partisanship ran high and threatened the destruction of our once happy relationship. It was finally agreed to call it anything we dum chose—anything to keep peace in the family.

Well, on the morrow we saw the Muir glacier, but only at a distance. For several hours we were so wedged in with ice that every moment threatened annihilation. As it was, the stem of the vessel was knocked off by an ice-

berg, and the Mexico was compelled to make the balance of the trip with a bandaged eye and a bloody nose, as it were. To attempt to proceed was suicidal. So we heaved anchor (and a sigh of relief) and made off in another direction. But Captain Hunter was bound we should see a glacier, and a better one than the Muir, so he headed for Takou Bay. Takou Glacier is not as wide as the Muir, but is nearly as high. It has, moreover, a sheer, ragged face of ice which the Muir has not. The ice, too, is absolutely clean and clear, whereas Muir Glacier is more like the glaciers of Switzerland—a combination of snow and mud. All this I was told and, indeed, had some opportunities for verifying with the aid of a field glass. We anchored within stone's throw of the great wall of ice. We beheld tons of it crack off and drop into the sea with a boom and a swash that caused the great hulk of the Mexico to dance like a cockle shell. The sun was shining brightly, and its rays seemed to be caught and swallowed by the icebergs till their inwards glowed like coals of fire. And the ice was pure as crystal, ranging in color, through a beautiful chromatic scale, from an opalescent baby blue to the deepest indigo. And yet (how dare I say it) I was disappointed in both glacier and iceberg. Of course a solid chunk of ice, miles and miles in extent, is a big thing in ice, but it is not overawing, nor particularly thrilling. Why is it? Probably because it and the mountains are placed juxtaposition. A mountain of ice, 100 or so feet high, does not seem so much of a mountain between two elevations of earth 5,000 or 6,000 feet high; and as for the icebergs, there is so much of them under water that you have to bulldoze your imagination a good deal to realize their ponderosity. But I am thankful to have seen a glacier and an iceberg; hereafter I can smile serenely to myself when I hear other people lie about them.

Chilcat, which is only an Indian village with a cannery attachment, was our northmost limit, and from here we turned homeward.

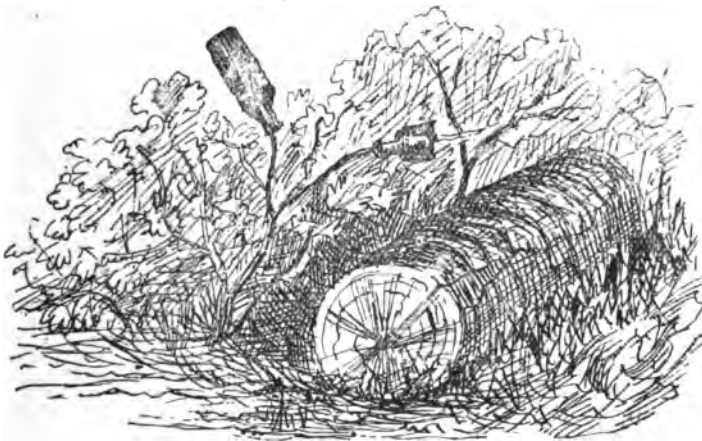
Whatever latent æstheticism there is in the Alaskan nature finds expression in their canoe. It is their *chef-d'œuvre d'art*, and they are more tender of it than they are of their children. When not in actual use it is drawn up on the



shore and covered with blankets to protect it from sunstroke. I was curious to know how they fashioned it so symmetrically, and proceeded to inquire. It seems that a log is hewn out to the desired thinness and, near as may be, to the desired pattern. The hollow is filled with water, into which they heave stones heated red hot. The water is thus kept bubbling till the wood is thoroughly steamed, when it is shaped and fashioned by a process of wedging. Afterward a carved prow and stern are fastened on with willow withes, and there you have it—a thing of beauty and a joy forever. What the street car is to a civilian, or the bronco to a cowboy, such is the canoe to the Indian. These Indians do not like to walk, and I do not blame them—it would take a

brave man to walk far on such corkscrew legs. Tiring of one locality, they load their household goods, children, dogs and all into a big canoe and paddle off to another island, happy as clams and twice as clammy.

In closing, one explanation is necessary. This letter was commenced *bona fide* on the date it bears *teste*; but my scribbling has been very desultory, and I find myself again in Portland, still at it. This will account for several seeming anachronisms. I might also state that on this trip I represented no Bureau of Information. My object was fun and recreation, and such knowledge as I picked up was purely incidental, and, of course, entirely superficial. And so—*voila tout!*



## BY-PLACES IN THE HAMPSHIRE HILLS.

BY CHARLES HALLOCK.

Were there ever days more charming, summer haunts more satisfying, skies so bright, sun more genial, atmosphere so pure? Did mountain brooklets ever run more clear or hardwood forests wave their fronds more winsomely? Was ringing call of bluejay ever so resonant in the glen? And where did mother partridge ever brood her fledglings in glades so undisturbed?

For season after season it has been my blessed privilege to see the vernal buds and the autumns ripen in these restful Hampshire Hills; and I have watched each changeeful growth develop onward toward maturity with an interest that fell little short of Druid worship—deriving such a sense of abiding comfort as no other spot on earth bestows on me. In the spring time all the blue-birds and thrushes join in carolling forth the praises of these, their native haunts; the peep frogs in the meadow chirp in unison; the bees take grateful wing o'er new-found flowers, and the skunk cabbage and fiddle-head brakes spring forth into luxuriant sweep of foliage. It is charming! All through the joyous summer months the land-

scape glows with vigorous life, and in autumn the big, round, yellow harvest moon attests the fulfillment of every golden promise.

Last year Messrs. Wade, Warner & Co., publishers of the *Hampshire County Journal* at Northampton, Mass., issued a superb quarto, containing more than four hundred photographs and drawings of this inimitable hill country, and even so did not begin to exhaust its scenic resources. Every one of its exhaustive pages is luminous with views of mountains, valleys, rivers, lakes and dells, and with characteristic sketches of its antiquities and present activities, interspersed with localisms quaint and charming. From this repertoire of typical transcripts the author of these written lines has been graciously permitted to select the cuts which accompany the text, every one of which

embodies a touching appeal to the superlative sense of the beautiful in Nature. I dare say that no other area of like extent can compare with it anywhere. Eden might envy it; even the primitive Eden from which our first parents had to be driven by force. And yet, in these



A NORTHAMPTON TROUT BROOK.

latter days of scramble for pelf, these same delectable hills have been voluntarily abandoned by their tenants! Few remain to occupy or possess. For a full generation at least the populations have been dwindling and the old homesteads lapsing to decay.

overgrown with thrifty young forests, and you will often find pine trees and tamaracks mingling familiarly with sturdy apple trees of doubtful fruitage; and in June and October the attentive ear will detect the muffled drum beat of the partridge, which seems afar off down the



BIRD SONG.

Follow an old country road in any direction among these hills in Northwestern Massachusetts, and you are sure to come eventually to some old ruin, a weed-choked cellar hole, or at least to a neglected orchard or a tumble-down stone wall. On either side the old fields are

glen, but is probably within the spruce copse close at hand. Yonder at the cross-roads, where there is a lusty poplar grove, striplings of two generations gone dropped potatoes for the hired man to cover, and from the weathered stumps which clustered in the clearing gathered



many a wasp's nest packed full of juicy grubs, to be used for bait for trout. Down in that tangled ravine stood a busy satinet factory, of which scarcely one iron bolt or brace remains. It would be a good place to fish for trout now, were it not for the brushwood completely choking up the stream and covering it out of sight. Forty years ago there was considerable patch of open road there, where they used to stretch the heavy woolen cloth on frames to dry in the open air, but now even the searching sunbeams cannot penetrate to "where the trout hide." But we know the stream is there all the same, for we can detect its muffled babbling, like the crooning of an old woman in the chimney corner; and perchance, if we listen attentively, we may hear a muttered tale of some of the by-gone years. Ah! me. The old orchards which were once used for mowing now do niggard duty as pastures, while the pastures themselves are overgrown with scrubby ferns, which conceal the multitudes of rocks and are of no use at all. Cornfields and garden patches have long since grown to jungle, and the birch saplings and beeches are stoutest where the old cellar holes are deepest. Even the purple fire-weed which always followed the burnt land of the clearings has totally disappeared, and its place is usurped by the dog-wood and poison ivy. There has not been a new clearing for fifty years! And the aggravating part of the whole business is that a vagabond crow, which keeps up a bawling from the top of a neighboring rampike, actually presumes to resent our intrusion, and wakes up a whole colony of his black imps, who join in a lusty guffaw as they take wing. It is the unkindest cut of all.

But presto! It is whispered in the woods, and it is already written on the sybilline leaves, that a welcome change is coming; that the day is even now at hand when the pilgrim who revisits the home of his forefathers will no more be jeered at by the unpunished ravishers of the corn-patch. One by one the wayfarers who went out a full generation ago into the West and to the metropolitan centres to seek the fortunes which never could be won at home, are returning to rehabilitate their ancestral acres and rekindle the family hearthstone with life and joy. A few aged survivors are yet alive to greet them and bestow the blessing, though the bell of the village church tolls too often ominously enough for the infirm old people who remain to close each other's eyes while the breath goes out with unsatisfied longings and vain regrets for those who never come.

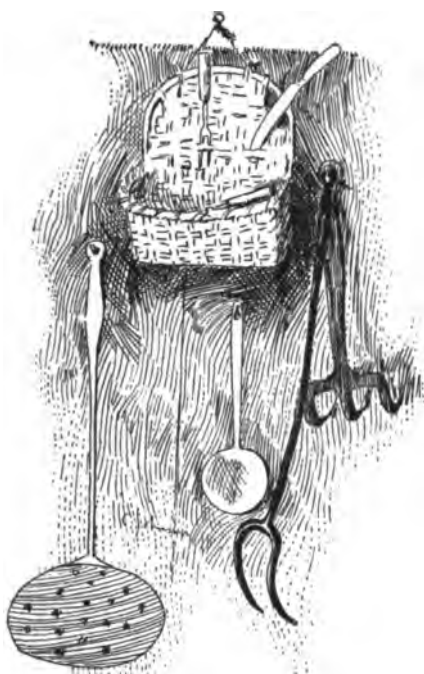
Would that the homeward tide was setting stronger. Much true enjoyment might be doubly earned by restoring the old places, either for permanent or summer homes, painting up the weathered houses, reshingling the barns, embellishing the lawns, rejuvenating the pasture lots and the old fields, cutting out the tangle by the roadside, setting up the tennis nets, and collecting the waters of the errant brooks for trout ponds. Place the old people out on the porch in their easy chairs and let them watch the progress of the innovation. It would be like the development of a new world to them. Here is present choice of pretty houses, now tenantless, for the trifling rent of thirty dollars per year; or you can buy the house with plot of ground outright for the paltry sum which the rich man lavishes on a livery for his coachman or an afternoon lunch. Why



AN OLD BACK PORCH.

ollow the *ignis fatuus* of caprice and fashion to inhospitable parts, where envy and rivalry for precedence and love of display are the animating impulses? *Here is peace and rest.*

Are there any localities in the land more capable of embellishment and improvement? The whole region is like a park, with mountain views and bucolic scenes inimitable. Nature has fashioned it with rounded lines of beauty and presented it in every conceivable form to



OLD UTENSILS.

please the summer sojourner. These old hill farms have commanding sites. Very few of them lie in the valleys, because there are no valleys. Wherever there is a valley there is a ravine and a tumbling stream, with barely breadth enough for a wagon road, over which the interlacing foliage forms an arch. Were ever drives more shady or more rustic? As we climb the hills out of the valley each foot of altitude expands the view. Some of the distant mountain ranges are superb. Directly below us is the valley panorama, with the old mill ponds dwindled into pools and the face of the

brook revealed at intervals through the hovering alder bushes. How often, during the past fifty years, have I covered those waters with my casts of flies, and marked the swirl which the rising trout left as they broke the calm surface. Only last summer two thousand small trout were taken from the old Mill Brook alone, chiefly by farmers' boys on rainy days. It is astonishing how the little trout will rise in the turbid water. While the roil is on they bite at anything. They seem infatuated. They seem to lose their senses. But as soon as the streams run clear every fish lies *perdu*, and the most cautious angler can seldom stir a fin. Sometimes I wonder if these mountain streams can never become entirely barren, and often, when one might fancy that the last survivor had been incontinently lifted out, some exploiter will amble into town with a half-pound trout or a full pounder caught from under a dam or at the head of a pond.

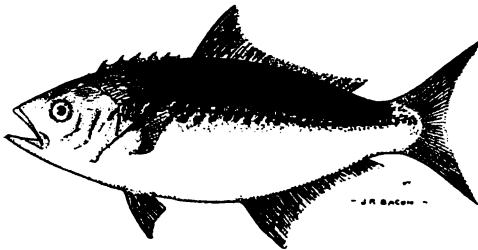
Such ideal trout streams exist nowhere else in my mind. For the most part they have a rugged aspect, pitching over ledges and dykes of trap, beating against perpendicular walls of slate, tumbling over big boulders in mid-stream and whirling impetuously along with fretful foam hidden by limbs of interlacing trees. Occasionally there are still reaches, and at rare intervals their course leads through an open meadow, with broadening ponds where there have been mill sites, and deep pools in natural excavations. The most romantic scenery is on West Hawley Brook and the Swift and Westfield rivers, and a most interesting field lies open before the geologist. Some day I hope to see the streams of Hampshire County stocked and properly protected. With larger fish and better fishing the charms of this whole region would be much enhanced. Let us look to our interests. Let us jealously preserve the few last remaining acres of our New England hill country and colonize them, not with unsympathetic Scandinavians and French-Canadians, but with summer cottagers who are proud to recognize the kinship of the Yankee pioneers who peopled these delectable though rugged lands. Then, indeed, in the near future will there be dulcet days for the Hampshire Hills.

## NOTES FROM NORTHWEST AFRICA—BARBARY BASS, BLUEFISH, ETC.

By CHAS. A. PAYTON.

Some of the readers of THE AMERICAN ANGLER may be interested in a few lines from this side of the Atlantic. An excellent season for sea fish, as to quantity, has been considerably marred by prevalence of strong winds and rough seas, especially when migratory fish were most plentiful.

With our sea bass (*Labrax lupus*, identical with the European species) I had fair sport in the earlier part of the year, always with light rod and fine line, and generally with single gut and the combination of small silver spinner and fish bait figured last year in your pages. Best take—April 18—twenty-six bass and one "aouráh" in two and a half hours. Heaviest fish on that occasion, seven pounds; total,



about eighty-two pounds. June 16 I had, among other fish, a good ten-pound bass, which gave me a lively bit of work on single gut. In June and July we had sport with the beautiful "aouráh," of which I send you a sketch, not knowing the English name of this fish, which I take to be *Lichia vadigo*. Kindly let me know if you recognize it as a visitor to American waters.\* The color is bluish green on back; belly bright silver; tail yellowish-green; about twenty irregular-shaped, dark metallic markings along the lateral line; some curious smaller markings by the base of the tail, bearing some resemblance to Arabic char-

\* As stated in our November issue, *Lichia vadigo* is not an American fish. It belongs to the family of horse mackerels or tunnies. In our Atlantic waters we have several species of the horse mackerels, but they are not esteemed as food, although highly prized as such in the Old World from the time of the ancient Romans to the present day.

acters. The posterior portion of the belly is often gold-colored.

When quite fresh this fish has beautiful prismatic tints. The average weight is about four pounds, but I have killed them up to six. They go in great shoals, are very strong, swift and voracious, and are caught, like our bluefish, close in the wake of a swiftly rowed boat, by a piece of white rag or strip of bright fish skin on a barbless hook, with a short pole and a wire line. I was generally satisfied with fewer fish, though more sport than my Arab friends, catching from five to thirteen of an afternoon on light rod, fine reel line, double gut tackle with a little white wire next the hook, and a "silver spinner" about three and a half inches long. As the fish fought hard and were game to the very last, it was not a bad substitute for salmon fishing.

The year 1891 has been a good one for bluefish (*tasergelt*). A few were caught in April, a very unusual time for the adult fish, though we often get a few youngsters of a pound or two in spring. The usual time for arrival of the big schools is the end of August, but this year they came at the beginning of that month, though during it and September there were not many sporting "rises" of these gallant fish, but the greatest numbers and heaviest weights were taken at anchor in fifteen to twenty-five fathoms, fishing close to the bottom, baiting with cuttle, squid or fish, and "chumming" freely with rough fish. These bottom-feeding bluefish have averaged nearly ten pounds in weight; my best was eleven and a quarter pounds.

On the rods on the surface, when they have been madly on the feed among shoals of sardines, etc., tremendous execution has several times been done by the time-honored, and *very effective*, moorish style of short, stout pole, six feet of twisted brass wire attached to pole by two feet of stout cord, a powerful six-inch *barbless* hook, figured in THE AMERICAN ANGLER last year, and a long bait of the bluish-white skin of the fish itself hung well above the hook.

I have shared in hardly any of these butcher-ies, seldom being lucky enough to be at the right place at the right time.

But here is a fair example: My friend R., in a big five-oared boat, last Monday morning (October 5), after rowing over miles of water without meeting anything, struck a fine school of bluefish "mad on," and within three-quarters of an hour he and two of his Moors, with the rods and tackle aforesaid, jerked on board one hundred and sixty-eight fish, averaging close on six pounds each, say about half a ton of fish before breakfast.

Same morning, going north instead of south, I worked hard for three fish, one of which—nine and a half pounds—gave me a splendid fight on rod and reel for about ten minutes.

Next morning R. had a blank and I was not out, but on Wednesday morning the same three rods got eighty-two bluefish in half an hour. One or two of the small, short-finned tunnies have recently been caught among our "blue" visitors. The bonito, which seem almost "uncatchable" in these waters, have not made their appearance yet.

One day last week I had the pleasure of "discussing"—in a double sense—Barbary bluefish on a beautiful American yacht, the "Ultowana," owner W. West Durant, of New York, which, coming from the Azores and Canaries, paid Mogador a brief visit and proceeded to Portugal and Lisbon. She is bound on a two years' cruise round the world.

To turn from salt water to fresh, our little river Wad Kseb contains only barbel, eels and tortoises, but the former, when sea fishing is impracticable, afford me pleasant sport on the very finest of tackle, amid wild and varied scenery, enlivened by the songs of many birds and the beauty and perfume of many characteristic flowers. I carry gun as well as rod on these rambles, and get a little wild fowl and other shooting.

I have been told of a stream near the "Iron Mountain" said to contain trout, and must investigate it some day. If there really are any "speckled beauties" in the said stream, which

I doubt, they will probably turn out to be *Salmo (fario) macrostigma*, which representative of the family has been found in Algeria, also in the neighborhood of Tetnan, and the Anjera Hills near Tangier.

Tourists in the Holy Land should look out for brook trout; they have been found in Palestine, I believe in Jordan or its affluents.

P. S.—Probably some of your readers are hunters; if so they may like to hear of two good boar hunts which my friend R. enjoyed on two consecutive Saturdays, September 26 and October 3.

On the former occasion the boar was started early in the morning and followed by R. on foot, with native hunters and dogs, for ten hours over something like forty miles of rough country; he finally turned at bay, wounding many dogs, and R. got five shots at close quarters before the old "tusker" fell, after constantly charging and twice giving the sportsman barely time to reload one barrel of his 12 bore central fire before he was upon him again. The boar of October 3, a still larger animal, was started about 5 A. M. by the river Fidzi, fifteen miles south of Mogador, and not killed until 5.30 P. M., when R. knocked him over by a single lucky shot at seventy-six long paces, while crossing a shallow ford, the heavy round ball cutting right through the heart.

This boar had gone along most of the time in a frightful temper, dashing at the dogs right and left whenever he got a chance, killing one and wounding several, and once went out of his way to charge and upset an unoffending countryman passing along the road on a donkey. The man's clothes were cut in several places, but he escaped with a few bruises; the donkey was badly ripped in the belly.

R. sent me a leg of each of the two boars in question, and, in spite of their size and age, the meat was white, tender and well flavored. Perhaps the ten and twelve hours traveling had something to do with the tenderness.

I have been at several boar hunts with R., but have never seen such a long pursuit, either by night or day, as either of the above.

## AN OUTING ON THE NEPIGON.

BY JOHN A. SEA.

"Away to the brook,  
All your tackle o'erlook,  
Here's a day worth a year's wishing.  
See that all things be right,  
For 'twould be spight  
To want tools when a man goes a-fishing."

So ran the old song. With it in mind tackle was overhauled, lines inspected, flies examined, defective leaders, hooks and flies thrown out, and new ones ordered preparatory for our summer outing. A man wants his tackle in the best condition on the Nepigon. In the summer of 1889 a party of five members of the Minnesota Angling Club took a car over the "Soo Line" from Minneapolis to Sault Ste. Marie. We were, for a few days, through the kindness and courtesy of the officers of that road, virtually owners of the line and boss of all trains. Our car was dropped off and taken on to trains at our own sweet will. We spent a delightful two weeks. First one stream, then another, was fished. The lakes along the line gave us game bass and heavy pickerel. We caught many trout and managed to eat all we caught. At every place we stopped we were gravely told that the trout just at that particular place were not biting well and but few could be taken (this was not always in accordance with the facts), but "about forty miles up the road," at Pine River or other point, they were taking "lots," or "quite a good deal, of *big* trout." Our party, Messrs. Lauderdale, Andrews and Hilliker, of Minneapolis; R. M. Snyder, of Kansas City, and myself, continued to chase those big trout, which were always "just forty miles away," until we ran them into Lake Superior and the Soo. Our largest trout on that trip was just two pounds, but I am satisfied larger ones can be found and taken. It was a delightful trip. We took many trout, and, owing to the kindness of the officials of the road, we lacked for nothing.

In 1890 Mr. Snyder and I, mindful of the last year's experience and remembering that we had chased those big trout into the lake, again started after them. This time we headed to Port Arthur and were soon on the Nepigon.

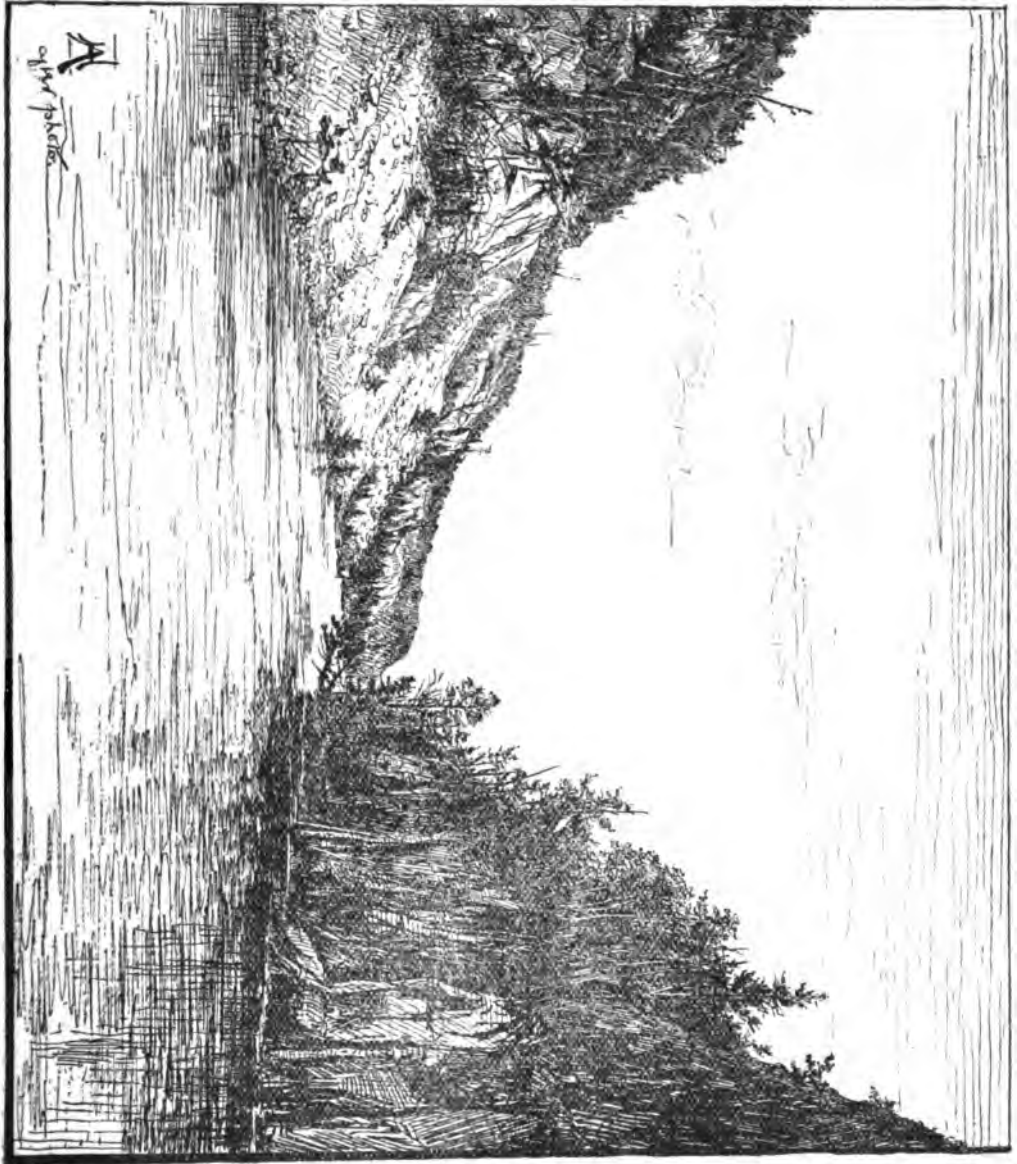
Having already spent the greater part of our outing at the Minnesota Club House, in Minnesota, we were limited as to time, but managed to find out that we were gradually overtaking those "forty-mile" trout. The river was high, but many trout came to our basket from three to three and a half pounds in weight. With a four and a half pounder to gladden friend Snyder and a four-pounder for myself, we again turned our faces homeward.

This season my thoughts again turned northward. I was anxious to go

"Fresh health and vigor to obtain,  
And clear the cobwebs from the brain."

Visions of glorious trout flitted through my mind. The four-pounder had made me ambitious, and I had a faint hope that, by some happy combination of circumstances, I might be able to attain the dignity of a five-pounder. I had read of such fish, and with the recollection of the terrible battles had with much smaller trout by "Adirondack" Murray, and the later great struggle with one of three-quarters of a pound by Charles Dudley Warner, my blood would tingle as I tried to imagine what the struggle would be with a five-pounder in swift water instead of a quiet lake. I hoped I would live to tell the tale.

My stories of the former trip had inspired my friends with a desire to go. Oscar said he would go with me if I would promise to take care of him, as he weighed two hundred and fifteen pounds and is six feet two inches tall. As I am fully five feet ten and weigh one hundred and fifty pounds, I felt competent for the task and readily promised to do so. He had fished in the West, especially in Snake River, Idaho, but my stories of the beauties of the Nepigon decided him to go with me. It is true I told him of the mosquitoes, flies and midges. He had never fought them in the mountains, they are never troublesome before nor after a trip, so what were they to the glorious possibility of a five-pound speckled beauty taken from the clear, rushing waters of the Nepigon? Others were busy and could not



BUFFS DOWN THE RIVER FROM SPLIT ROCK ON THE NEIGON.

get off. We decided to start on June 29, so as to reach the river by July 3, a bad time for flies and mosquitoes but a fine fishing time if the water be right. Guides and canoes for two of us were secured.

The great question of what to eat and how much to take gave trouble. We wished to have plenty but "fly light." We wanted our list all made out so as to stock up at Port Arthur or Nepigon, as the thousand miles of travel deterred us from taking stores from home. An inspiration came. We wrote to the quartermaster of the United States Army at Fort Leavenworth asking for Government rations for four men in active service, telling him what we wanted to do, for fifteen days. A speedy answer came from Captain Hathaway, giving the necessary list, and, with the kind forethought and courtesy that renders "officer and gentleman" synonymous terms, made some suggestions that added to our pleasure and comfort. The list sent us was ample and just right. With heavy canvas bags (sailor bags) for clothing and bedding, we had in our entire outfit nothing superfluous, yet needed nothing to add to our comfort. On the 27th, Saturday, Doctor and Charlie decided they would go, and after much hurrying were ready. An uneventful railroad ride to Duluth, a pleasant sail on the steamer *Monarch*, rendered doubly pleasant by the entertaining conversation and bright eyes of a fellow passenger, a pretty little lady from Duluth, we reached Port Arthur.

Here Oscar was enthusiastically received at one of the hotels by a former citizen of Arkansas, who emphatically declared that he knew as soon as we appeared that Oscar was a "blankety blank fellow from Missouri or Texas," and therefore received him like a long-lost brother—or more so. July 3 found us on the river. Our great expectations were about to be realized—or we disappointed. The water was in good condition. The weather was quite cold, but the flies and mosquitoes were all there and began their work at once. The month of July is said to be the worst time of the year for them. We were fairly well protected and found oil of tar, sweet oil and oil of pennyroyal about the best of all the bug-

disgusters. Emphatic and vigorous language began to come from my companions. Oscar was a favorite object of attack, his Missouri-Texas appearance no doubt promising a savory repast. He bore it finely, however, and not until after a week's continuous fight, when one day at dinner, attempting to take a drink of tea and being compelled for the fifth time to lower his cup untasted to rescue some five or six drowning mosquitoes or black flies, did the suppressed feeling break forth and he could do the subject justice in language strong and picturesque. That ebullition was at once heartily indorsed by the entire party, guides and all. But it did not seem to make any perceptible difference with the flies.

Our first camp was, as is customary, at Camp Alexandria. Here the trout have had cast over them and to them, almost continuously, every imaginable kind of fly, spoon, bait and minnow, yet, strange as it may be, good trout are taken when the waters are rested for a short time. Here we found two English gentlemen camped, one of them with his wife. One of these gentlemen was at least four inches taller than Oscar, and in consequence we had to "stay him with flagons and comfort him with apples"—and other canned goods—until he had recovered from the effect of the paralyzing thought that "a blarsted Britisher" was bigger than a "blankety blank man from Missouri or Texas." The method adapted by this tall gentleman for the capture of trout was fully as paralyzing to them as his height was to Oscar. Clad in a light summer suit, almost white, pants turned up once at bottom, traveling cap on head, pipe in mouth, bowl just under his nose so he could smell as well as taste his tobacco, he would take a stand on a big rock ten feet high above the water, visible for a hundred yards in every direction, and with a cane pole would fish. The trout must have thought the ghost of Albion was after them and fled in terror—at least they did not bite. Oscar derived much comfort from the fact that with a light fly-rod, and clad in dark grayish clothing, he could slip quietly along the bank and take more trout, and bigger ones, in one hour than the tall man could in six, so putting the United States in the lead.

Louis and David having gotten our tents up, we took canoes, going to the foot of the rapids just above the point. Eighteen trout, weighing from one to two and a half pounds, were soon taken. Being enough for supper and breakfast we returned to camp. Our English cousins had one nice trout of about one and a half pounds and several small ones, so we divided with them to make out a good supper for their party. Supper over, bedding down, mosquito bars up, the roar of the rapids soon lulled us to sleep with visions of the good things in store for us flitting through our dreams. We slept the sleep of the contented angler.

Now, lest I forget it, I want to say that on our entire trip not a fish was wasted. Those



A GOOD LIKENESS.

not needed or that could not be used as food for our party (with guides) of eight, or some one camping near us, were returned to the water unhurt. This is one of the most pleasant memories of our outing.

The trip up the river and its beautiful scenery have often been described. We traveled as they all do. At Long Portage, while the Indians were getting our things over, Oscar and I went over the bluff, and in the rapids opposite Cameron's Pool, in some of the wildest water I ever saw, we caught with a Golden Doctor and Fairy five beauties, one of a pound and a half, two of two pounds, one of two and three-quarters, and one of three and a half pounds.

At the head of Long Portage we were intro-

duced to a new specimen of Indian life. We came down the trail to where our canoes and baggage were, and found seated near them a most forlorn-looking old buck. Hair long and matted with tar from the canoe, shoulder bruised and raw and on it a wen as large as half a baseball, shirt slipped down on one side, he looked as if he were about to die, so we immediately called the Doctor's attention to him. Doctor examined him, rubbed his shoulder with vaseline and camphor, gave him a drink of "Indian brandy" and in about ten minutes the old chap was up giving a very spirited account, in choice Ojibway and pantomime, of a fight he had had a few days before at Red Rock. The old fellow had been helping our men over and had skinned his shoulder with the canoe. In fact he was "running a dray" on the portages. After getting his dinner he seemed to be fully revived and struck out with his single canoe, being ready at the next portage to help us. A nice ham we had also disappeared about the time he did.

Our camp the second night was at the foot of Piney Portage. That afternoon was spent at Hamilton's Pool. Many beautiful trout were taken, but none over three pounds. The next day we had our guides drop us down to Island Portage on the east bank. By the side of the east rapids we fished. Our success was all that the most ardent angler could desire. The light Orvis and Leonard rods bent and swayed under the power of the big trout. Here let me say that the first rush of a big sucker hooked through the tail is terrific. I tried one, but do not recommend it as a game fish. At this place my heart was first broken. I hooked a big fellow, played him until he was exhausted, then some drift borne by the swift whirling waters was swept in on my line and broke me. I had a good view of him and had decided, from his length, that my dream of a five-pounder would be realized then and there. Our trout for that day ranged in weight from one to four and three-quarter pounds, more than two-thirds of them over two pounds. Over fifty were taken from 9 A. M. to 3 P. M., all returned to the water except those used by us and the two families camped by us.

Here the Doctor was again called to treat



another "sick Injun." David, our guide, acted as interpreter, and the Doctor, made a careful diagnosis of the case. After listening to heart and lungs, feeling of pulse, and many questions and answers translated back and forth, we ventured to inquire the nature of the complaint. Doctor grunted and simply said "Foundered!" He gave the patient some pills and advised him as to his diet. Doc. was very particular as to the diet, telling him to be careful and eat light, limit himself and not eat over *four pounds* of fish at a meal. Now the Doctor intended to be ironical as to amount, but the Indian grunted, took all the pills at once, together with the irony, and next morning said he was "heap well." We have been unable as yet to learn from Doctor whether the pills, diet or irony cured him. It was here also that Charlie was newly christened. Fresh air, exercise and fishing began to tell on him, and his great staying powers as a trencher man began to show. Watching him for a long time, seeing the broiled trout, meats, fruits, tea, bread and flapjacks disappear, an old Indian sitting near grunted forth something, which was duly translated to us by Louis and David as naming Charlie, "Little-man-who-eat-a-heap." He was thenceforth so known, and, taking a pride in not losing his war name, he did his best to keep it. He succeeded.

Our next and permanent camp was at Camp Miner. Here we had glorious sport. We found *small* trout hard to get, as we were using large flies—Silver Doctor, Golden Doctor, Jock Scott, Fairy, Queen of Waters, brown hackle and Professor, used in order named. But the glorious day was yet to come.

The weather had been cold and cloudy, the wind in the northwest. On the morning of July 7 a change came. The wind shifted to the south. The sun came out warm, with occasional clouds drifting over. Taking canoes, we started at an early hour to Virgin Falls, where

"The starry trout,  
Fair to behold,  
Roameth about  
On fin of gold.  
By rapid free  
His haunt you may see,  
Rude rock  
Or crevice old."

Oscar and I took the point on the west side of

the rapids, Doctor and Charlie the one on the east. On our side the sport began at once. A long cast on the edge of the rushing water, the fly swept down, and, as we drew it out of the main torrent, a tug would come and a battle royal would begin. A four-pounder came first to Oscar. My first was equal to it. Soon a heavy fish struck me. Leading him to one side, where I could get the benefit of the returning water in the great eddy, I fought a glorious fight and realized my dream—five and three-quarter pounds on my scales (brass balance scales weighing up to sixty pounds), six pounds on those of the Doctor. Again and again were the casts made, again and again did the big trout come out; another one of five pounds to me, then a six-pounder to Oscar. We no longer had words or voice to express our emotion, but when, after a gallant fight, I brought a monster to the net, and, placing him on the scales, they dropped to six, then to six and one-half pounds, a shout went up that could be heard above the roar of the falls on the other side of the river. The deed was done. We had passed the point that in our wildest dreams we had dared not hope to reach.

Putting on minnows, we tried the lake trout. Six, eight, ten, thirteen and three-quarters and seventeen pounds were they. All fought long and well, and in the swift waters of the river gave us our hands full to land them. The greater surprise was this, for we had always heard that lake trout would not fight much. This was our first meeting with them. The man who says a big lake trout in swift water, with light tackle, won't fight is away off. They play very much like a wall-eyed pike-perch. Doctor caught a three-pound whitefish also. Our score that day stood as to large ones as follows:

To me:—Brook trout, one of 6½ lbs., one of 5¾ lbs., three of 5 lbs., four of 4½ lbs., four of 4 lbs., six of 3½ lbs., two of 3 lbs. and several under that weight; lake trout, one of 13¾ lbs., one of 8 lbs., four of 6½ lbs. and two of 6 lbs.

To Oscar:—Brook trout, one of 6 lbs., two of 5 lbs., six of 4½ lbs., four of 4 lbs. (Here in parenthesis: One of them, after a gallant fight, was landed, but, coming just behind the six and a half pounder, Oscar weighed him and dropped him back into the water with a look of disap-

CENTRE FALLS ISLAND PORTAGE ON THE NEPICOM.



pointment and disgust, and the very emphatic remark, "Oh! he only weighs four pounds!" Think of a man disgusted because his trout did not weigh *over four pounds*!), three of  $3\frac{1}{2}$  lbs. and several smaller ones from two to three pounds; lake trout, one of 10 lbs., one of 9 lbs., one of 8 lbs., one of 7 lbs. and three of 6 lbs.

To Doctor:—Brook trout, one of 6 lbs., one of  $5\frac{1}{2}$  lbs., one of  $4\frac{1}{4}$  lbs., one of 4 lbs., two of  $3\frac{1}{2}$  lbs. and several small ones from one to two pounds; lake trout, one of 17 lbs.

To Charlie:—Brook trout, one of  $5\frac{1}{4}$  lbs., two of 4 lbs., two of  $3\frac{1}{2}$  lbs., one of  $1\frac{1}{2}$  lbs.; no lakereels.

This was not all steady fishing, but much time was spent in examining, weighing and measuring them. All were beautifully developed and proportioned; the formula  $W=13-2286$  worked out with the scales, except in one or two cases from six pounds up. These were handsome aldermanic fellows, and girth made up for lack in length. The coloration was brilliant.

The next day we tried below Camp Miner. Good water, but the forenoon was clear and very warm. The water was like glass, and our catch was light. Charlie took a five-pounder, Doctor two of two pounds, Oscar five from one to three pounds, and I four of about same size. This forenoon I lost three by leaders breaking. Two were in Devil's Rapids, where the bank was too rough and brushy to land and the current too swift to run and then work back in the canoe for dinner, so, virtually tied down, I struck two of fully four pounds (judging by length) each in succession. I saw them plainly, but, after playing them a short time, they dashed into the swift current, where their weight parted the heavy single leader (salmon gut) like cotton thread. The afternoon we were again at Virgin Falls and again had fine sport. Our largest as follows: To Oscar, one of six pounds; to Doctor, all small, one and a half to two and a half pounds, and a large three-pound whitefish; to Charlie, one of four and one of four and a half pounds; to me, one of five pounds.

We did not take these weights for show, but for our own use and satisfaction in the future. Not one of us cares to be "high hook," nor how many the "other fellow" gets more than we. We had an ideal time, and when we com-

pare our catch with what we have seen and heard, we can but feel satisfied that our lines have indeed been cast in pleasant places.

Our homeward trip was very pleasant. We took all the trout we could eat, and more too, every day. At head of Piney Portage, at 11 o'clock, Louie says: "You must get Injun fish for dinner or he starve; no eat meat Friday." "All right, Louie, where do you stop for dinner?" "Robinson Pool. Get all things up there." Taking our rods we walked to Hamilton's Pool and began work. Keeping out of sight as much as possible, for we wanted our dinner, we soon had seventeen beautiful trout, weighing from one to three pounds. At half past twelve they were in the pan, and "Injun" did not starve.

Camping and fishing, we pleasantly made our way down, but nothing like our first day at Virgin Falls did we see, nor do I ever expect to again. Gliding swiftly under the railroad bridge, we are soon at Nepigon, where, repacking our outfit, we turn our faces homeward, happy and contented.

I sent two trout, one of six and one of five pounds, safely home packed in moss and Rex. After traveling a thousand miles they arrived in good condition and were excellent eating, although they had been out of the water one week *without ice*. Looking back, we cannot wonder at the tone of doubt that some use when we tell them of our trip and our success. Many may have beaten us, but for that we do not care, nor do we envy them. We are satisfied. It was the best and finest fishing I ever had or ever expect to have, and stands out in bold relief among my fishing days, although many bright ones are there seen.

Pleasures brighten as they recede. The mosquitoes, flies, midges and "Injuns" have all vanished. We sit together talking over our trip. We feel the strike and play of our fish. We see his golden gleam in the crystal water, the ruby drops on his glistening sides. We hear the roar of the falls, the rush of the swift waters. The eye glistens, the voice falters, as we speak of the glorious Nepigon.

"Oh! 'tis a stream  
Most fair to see,  
As in a dream  
Flows pleasantly,  
And our hearts are woo'd  
To a kind, sweet mood,  
By its wondrous witchery."

## THE PAST SEASON ON THE RESTIGOUCHE RIVER.

BY SILVER DOCTOR.

The salmon fishing on this magnificent river was by no means up to the average—in fact, as far as the early run is concerned, was quite a failure—and great was the disappointment of the members of the Restigouche Club and their friends. Of course the blame must be laid on something, and the unfortunate breeding establishment at Campbellton came in for a large share of abuse, as this year an extra net was put across a part of the river that had not been blocked before. This may or may not have added to the troubles and sorrows of the fishermen up river, but a decision must be arrived at by more experienced heads than mine. It is a fact, however, that almost every river flowing into the Bay of Chaleur was far below the average of previous years; I mean such rivers as the Bonaventure, the Grand Cascapedia, Nepissiquit and others.

There was a late run of fish on these and the Restigouche River which rewarded the patient ones who stayed on and on in the face of every drawback, but, taken at its best, it was an off year, from causes unknown to any, for the ways of salmon are deep, mysterious and past finding out. I think, however, that apart from the netting at the mouth of the Restigouche and other rivers, it is the netting all along the Bay of Chaleur that is causing much mischief, and it would be well if the Government could be induced to decrease the number of nets now licensed by one-fourth, for I am informed on reliable authority that there are five or six times the number there used to be a few years since. Even if the wealthy Restigouche Club and other men who own pools on the Restigouche, Metapedia and Upsalquitch would combine and buy up four or five of the largest nets that are known to be specially injurious to these rivers, it would be far better than any such silly act as suing the Dominion Government, for there could be no possible chance of success, and I can only surmise that the rubbish that has appeared in an American paper is the outcome of a vivid imagination that has given no thought to the subject at all.

It is a very hard thing to get rid of any of the nets already licensed, but the evil can be very much decreased in a short time if the urgency of the case is brought before the Government in proper course. The same trouble has been experienced or is now going on in many parts of Great Britain, and surely those in authority in our Fisheries Department will take warning in time and try to counteract the evil by reducing the netting to reasonable limits. They must remember how much money is circulated in the country through the annual influx of the fishermen from across the line, and whom we Canadians are always glad to welcome, and not let the consideration of a paltry sum from net licenses spoil the prospects of both fishermen and those who earn from their coming probably from one-fourth to one-half of what they make during the whole of the year.

The Restigouche Club alone has, I believe, during the last two years spent over \$50,000 a year in leases, scouring, boatmen's wages and other things, and the money spent on the river is a great boon to its inhabitants. Several outsiders have recently built houses, and spend many weeks amidst the glorious scenery up and down the river, and who look forward with the keenest delight to the annual outing on Canada's noblest river. I recently undertook a most glorious trip nearly fifty miles up river to the mouth of the Patapedia, and from thence with two horses, three men and a canoe and dugout, twenty-five miles up the Patapedia, where we camped out three days. The Patapedia for a considerable distance—nineteen miles, I think—is the boundary between the Provinces of Quebec and New Brunswick. It is reserved for breeding purposes only and is never fished. It abounds in magnificent pools, and would afford grand sport of quite a different character to the Restigouche. It is a hard river to get up at any time, but its scenery is well worth a visit.

My journey was in quest of moose, caribou or bear, but unfortunately I had limited myself as to time, and hence returned unsuccessful, although signs of game were plentiful; but

apart from the want of success, it was one of the most enjoyable trips I ever had, and were it not that this journal is devoted to fishing interests alone, I should be tempted to describe it more fully. The scenery is grand and variable and the air most bracing; the difficulties are but few and are easily overcome, but one should at least take fourteen days from Campbellton or Metapedia and back. It is better to take all provisions from either of these places, as the inhabitants have a playful way of charging double prices as soon as they know their products are in demand; therefore make all arrangements for men, horses and provisions before starting. It was very interesting passing over most of the famous pools on this grandest of rivers, and I can well understand those who have once fished its waters becoming wedded to it. I had never been so far up before, but I trust I may become better acquainted with its beauties in either salmon fishing or shooting season, and I am well satisfied to own pools on its waters, for I am quite sure that the past season is merely an off year that must come now and then, and that it will always maintain the high rank it has gained among sportsmen all over the world. Next season will probably make up for all the disappoint-

ments of the past one, and in any case I hope to see the rod fishermen and the Government working together to make the fishing satisfactory and remunerative to all concerned, rather than a feeling of antagonism that can do no good to any one.

If there has been deterioration during the past few years, which, however, I do not admit, it is simply from the cause I have pointed out above, too much netting and no attention being paid to the law that all nets shall be lifted from 6 P. M. Saturday night to 6 A. M. Monday morning. If this law is strictly observed it will make a vast difference to the sport and the number of fish left for breeding; but I hope some day for even one day more, say Wednesday, when the nets shall be lifted for another twenty-four hours.

These things may be brought about in time, when the absolute necessity is shown to our Fishery Department, but I do not think anything is to be gained by kicking against the pricks, and that when the cause has not been properly established, for if 1891 was a poor season, it is hard to find one better than 1890. I may possibly enlarge on this subject at another time.



## AMATEUR FLY TYING.

### THIRD PAPER.

By S. K. PUTNAM.

Having described in as simple a manner as possible the method of dressing ordinary flies, I will now give a list of those flies in general use, making comments from time to time, when occasion requires, of any special style of dressing. I will not give an additional list of feathers and materials required, as all this knowledge may be gained from the descriptions of the flies. If the reader becomes at all enthusiastic he may attempt—as the writer does—to use only naturally colored feathers for the wings of all his flies. Should such be the case much knowledge may be acquired not only of birds and everything pertaining to them, but of the countries they inhabit.

Every true fisherman is in love with nature, and has in him the qualities which form the foundation of the study of natural history. In his frequent wanderings through the woods and along the trout streams he is brought so near to "Nature's heart" that his thoughts are taken away from the artificialities of city life and lean toward things as Nature made them.

In wishing to match a certain wing with a naturally colored feather you look around, ask your friends for information and get what knowledge you can from some naturalist or taxidermist, and eventually get a few feathers of the color and shade you need. Sometimes the feathers are very beautiful, and the question naturally arises, what must the whole bird look like, and after you have either seen or possessed the skin of the whole bird you wonder what country it comes from, what the climate is like and what the habits of the bird are, and thus you are led along from one thing to another until you unconsciously acquire quite an ornithological knowledge, as well as one of many countries. In your investigations you will come across some very queer things and some of the strangest birds imaginable. A few weeks ago, while looking over a lot of so-called worthless birds' skins, I came across a dilapidated skin of the peacock pheasant

(*Polyplecteron hardwickii*), a bird from Malacca. I laid away the skin, not having time to inquire into it then, and did not break it up until a few days ago. This bird is like the great argus in the respect that its secondaries and tertiaries are longer than the primaries or pinions. But the strange thing about it is that each leg has *two* spurs, whereas all other birds, so far as my knowledge goes, have only one. I am interested enough in the matter to look it up and find out why this bird is given an extra spur on each leg. If this bird is a fighter, as the spurs lead one to believe, what a grand thing it would be for those people who are raising fighting cocks to try this breed. Just imagine a fight between two cocks, each armed with two pairs of gaffs. However, cock fighting is not fly tying, and I will get back to my subject.

**BROWN PALMER OR HACKLE.**—Body, red silk floss ribbed with gold tinsel; legs, brown hackle wound whole length of body. This fly may be varied by using for the body yellow or green silk floss, peacock or ostrich herl. Where the herl is used there should be only a slight show of tinsel at butt. The fly may be further changed by adding to any of these variations a tail of either scarlet ibis or yellow feathers.

**GRAY PALMER.**—This fly is dressed in the same manner and with all the variations as in the brown palmer, using gray or gray furnace hackle instead of brown.

**BLACK PALMER.**—The same rule applies to this fly as to the brown palmer, using black hackle in place of brown.

**SCARLET PALMER.**—Body, scarlet mohair with slight show of gold tinsel at butt; legs, scarlet hackle wound whole length of body.

**GREEN PALMER.**—Body, dark green silk floss ribbed with gold tinsel; legs, green hackle wound whole length of body.

**YELLOW PALMER.**—Body, yellow silk floss



ribbed with gold tinsel; legs, bright yellow hackle wound whole length of body.

GINGER PALMER.—Body, yellow silk floss ribbed with silver tinsel; legs, pale ginger hackle wound whole length of body.

GRIZZLY PALMER.—Body, orange silk floss ribbed with gold tinsel; legs, white furnace hackle wound whole length of body.

WHITE PALMER.—Body, white silk floss ribbed with silver tinsel; legs, white hackle wound whole length of body.

SOLDIER PALMER.—Body, red silk floss ribbed with gold tinsel; legs, white hackle wound whole length of body.

GROUSE PALMER.—Body, peacock herl with slight show of gold tinsel at butt; legs, breast of Scotch grouse wound at shoulder only.

PARTRIDGE PALMER.—Body, orange silk floss, with slight show of gold at butt, or ribbed with gold tinsel; legs, breast of English partridge or back of American partridge tied at shoulder only.

COCH-Y-BON-DHU (Marlow Buzz).—Body, bright green peacock herl, with slight show of gold at butt; legs, furnace brown hackle wound at shoulder only.

ABBEY.—Tail, two or three fibres of golden pheasant tippet feather; body, red wound with gold tinsel; legs, brown hackle; wings, gray widgeon.

GRIZZLY KING.—Tail, red; body, green ribbed with gold tinsel; legs, furnace gray hackle; wings, gray mallard.

PROFESSOR.—Tail, scarlet ibis; body, yellow silk floss ribbed with gold tinsel; legs, brown hackle; wings, gray mallard.

RUBE WOOD.—Tail, brown mallard; tag, red silk floss with a turn of gold tinsel; body, white chenille; legs, brown hackle; wings, gray mallard.

DUSTY MILLER.—Tail, two or three fibres of gray mallard; body, dark gray mohair, ribbed with narrow gold tinsel (this ribbing is sometimes omitted); legs, furnace gray hackle; wings, dirty gray turkey.

LIGHT MONTREAL.—Tail, gray mallard; body, scarlet ribbed with gold tinsel; legs, scarlet hackle; wings, gray mallard.

DARK MONTREAL.—Tail, scarlet ibis; body,

crimson mohair, ribbed with gold tinsel; legs, crimson hackle; wings, wild turkey.

QUEEN OF THE WATERS.—Body, orange silk floss ribbed with gold tinsel; legs, brown hackle wound whole length of body; wings, gray mallard.

KING OF THE WATERS.—Same as Queen, except with red silk floss for body.

CAHILL.—Tail, gray mallard; body, mouse-colored mohair, with slight show of gold at butt; legs, brown hackle; wings, side feather (not barred) from wood duck.

GREEN DRAKE.—Tail, lead color (blue heron); body, white ribbed with black silk; legs, brown hackle; wings, side feather (not barred) of wood duck dyed yellow.

GRAY DRAKE.—Tail, gray mallard; body, white ribbed with black silk; legs, furnace gray hackle; wings, gray mallard.

BROWN STONE.—Tail, brown mallard; body, brown mohair with show of gold at butt; legs, dark brown hackle; legs, dark bustard.

POOR MAN.—Tail, gray mallard; body, dirty yellow mohair picked out at shoulder to represent legs; wings, gray mallard.

MARCH BROWN.—Tail, Scotch grouse; body, dark brown ribbed with yellow silk; legs, Scotch grouse; wings, Scotch grouse.

SHOEMAKER.—Tail, side feather (not barred) of wood duck; body, alternate bands of salmon and lead-colored silk wound over with gut; legs, brown hackle; wings, gray mallard and wood duck (not barred).

OAK FLY.—Body, orange ribbed with black silk; legs, brown hackle; wings, mottled brown turkey. (The wing coverts of the quail makes a good wing for this fly.)

GRANNOM.—Tag, green silk floss with slight show of gold tinsel; body, gray mohair picked out at shoulder to represent legs; wing, pale gray turkey.

SETH GREEN.—Body, green silk floss ribbed with yellow silk; legs, brown hackle; wings, light brown mottled turkey.

BROWN HEN.—Tag, red silk floss; body, peacock herl; legs, brown hackle; wings, dark mottled brown turkey.

STONE FLY OR CADDIS.—Tail, brown mallard; body, olive colored mohair picked out at

shoulder to represent legs; wings, curlew or light feathers from wing of night heron.

**SPIDER.**—Body, lead-colored silk floss with slight show of gold tinsel at butt; legs, black hackle; wings, wild turkey.

**ALDER.**—Body, peacock herl with slight show of gold tinsel at butt; legs, black hackle; wings, mottled brown turkey. With a lead-colored wing this fly is called a Gray Alder.

**HARE'S EAR.**—Body, mouse-colored mohair picked out at shoulder to represent legs; wings, lead color.

**PALE BLUE DUN.**—Tail, a few fibres of pale blue feather; body, mouse-colored mohair; legs, gray hackle; wings, pale lead color.

**IRON BLUE DUN.**—Tail, English starling; body, blue-gray mohair ribbed with yellow silk; legs, brown hackle; wings, starling.

**GREAT DUN.**—Tail, brown mallard; body, brown mohair, with slight show of gold tinsel at butt; legs, furnace gray hackle; wings, lead color (blue heron).

**BEAVERKILL.**—Body, white silk floss, with slight show of gold tinsel at butt; legs, brown hackle wound whole length of body; wings, blue heron.

**RED FOX.**—Tail, two fibres of gray mallard; body, dirty red mohair; legs, brown hackle; wings, lead color.

**BRIGHT FOX.**—Tail, gray mallard; body, slightly yellowish mohair, picked out at shoulder to represent legs; wings, dirty white feather.

**COWDUNG.**—Body, orange mohair, with slight show of gold tinsel at butt; legs, ginger hackle; wings, light curlew.

**DARK COWDUNG.**—Body, peacock herl, with slight show of gold tinsel at butt; legs, brown hackle; wings, light dun color (night heron).

**GRAY COUGHLIN.**—Tag, yellow silk floss; tail, brown mallard; body, gray mohair, with peacock herl at shoulder; legs, furnace gray hackle; wings, lead color.

**BROWN COUGHLIN.**—Tail, brown mallard; body, reddish brown mohair, with peacock herl at shoulder; legs, furnace gray hackle; wings, lead color.

**RONALD STONE.**—Tail, blue heron; body, mouse-colored mohair ribbed with yellow silk; legs, gray hackle; wings, lead color.

**COACHMAN.**—Body, peacock herl; legs, brown hackle; wings, white.

**DARK COACHMAN.**—Body, peacock herl; legs, black hackle; wings, blue heron.

**ROYAL COACHMAN.**—Body, peacock herl, with a band of bright red silk floss around the middle; legs, brown hackle; wings, white.

**FERN FLY.**—Tail, gray mallard (sometimes dressed without any tail); body, orange; legs, brown hackle; wings, gray turkey.

**GOLDEN SPINNER.**—Tail, two fibres from ginger hackle; body, yellow silk floss ribbed with gold tinsel; legs, brown hackle; wings, blue heron.

**RED SPINNER.**—Tail, two fibres from brown hackle; body, red silk floss ribbed with gold; legs, brown hackle; wings, blue heron.

**JENNY SPINNER.**—Tag, brown silk floss; tail, black fitch hair (two or three fibres from glossy black hackle will do in place of fitch hair); body divided into three parts, upper and lower parts brown silk floss and middle part white silk; legs, gray hackle; wings, pale lead color.

**BLUE BOTTLE.**—Body, blue chenille ribbed with black silk; legs, black hackle; wings, dark lead color. Certain parties claim that the body of this fly should be made of a peculiar shade of steel blue silk floss. It is impossible to describe this shade, and a specimen of the fly must be seen.

**BEE.**—Body, yellow chenille, with a band of black silk floss around centre; legs, brown hackle; wings, blue heron.

**HAWTHORNE.**—Body, black silk, with slight show of gold tinsel at butt; legs, black hackle; wings, very pale grayish white from wild duck's wing.

**DOTTEREL DUN.**—Tail, gray mallard; body, pale lead color ribbed with fine black silk; legs, pale gray hackle; wing from the dotterel.

**DARK FOX.**—Tail, gray mallard; body, dark lead-colored mohair, picked out at shoulder to represent legs; wings, lead color.

**CAPTAIN.**—Tag, peacock herl; tail, scarlet ibis, yellow feather and gray mallard; body, white; wings, lead color.

**BLACK GNAT.**—Body, black ostrich herl; legs, black hackle; wings, dark lead color from the darkest feathers of the blue heron. This fly is often tied with black wings, but I think



this is wrong. When this fly is tied on a No. 10 or smaller hook—as is generally the case—the legs may be omitted. This fly is sometimes tied with an orange silk floss tag; it is then called McBride's black gnat.

**CLARET GNAT.**—Body, claret-colored mohair, picked out at shoulder to represent legs (sometimes claret hackle is used for legs); wings, lead color.

**OLIVE GNAT.**—Body, olive-colored mohair, picked out at shoulder to represent legs; wings, olive color.

**PRINCE'S GNAT.**—Body, lower half orange silk floss, upper half black ostrich herl clipped close; legs, none; wings, pale lead color.

**BLACK MIDGE.**—Body, black silk floss ribbed with fine silver tinsel; legs, black hackle; wings, dark lead color.

**YELLOW DOLLIE.**—Body, yellow mohair picked out at shoulder for legs; wings, lead color.

**LITTLE EGG.**—Body, orange mohair, picked out at shoulder for legs; wings, lead color.

**LITTLE CLARET.**—Tail, gray mallard; body, claret silk floss ribbed with gold tinsel; legs, claret hackle; wings, gray mallard.

**LIGHT CLARET.**—Body, claret silk floss, with slight show of gold tinsel at butt; legs, claret hackle; wings, blue heron.

**DARK CLARET.**—Same as the light claret, except that black hackle is used for legs in place of claret.

**YELLOW SALLIE.**—Body, pale yellow silk floss ribbed with gold tinsel; legs, pale yellow hackle; wings, pale yellow.

**YELLOW MAY.**—Tail, yellow; body, yellow silk floss, with slight show of gold tinsel at butt; legs, yellow hackle; wings, gray mallard dyed bright yellow.

**JENNY LIND.**—Tail, bright blue; body, deep yellow silk floss ribbed with gold tinsel; legs, claret hackle; wings, bright blue.

**MCBRIDE'S PROFESSOR.**—Tail, scarlet ibis; body, yellow silk wound with gut and peacock sword at shoulder; legs, brown hackle; wings, mixed wood duck (not barred) and mallard all dyed yellow.

**BEAUTY.**—Tail, guinea hen; body, gray mohair ribbed with silver tinsel; legs, guinea hen; wings, same.

**RED ANT.**—Tag, peacock herl; body, deep red silk floss with peacock herl at shoulder; legs, brown hackle; wings, lead color.

**BLACK ANT.**—Tag, black ostrich herl; body, black silk floss with black ostrich herl at shoulder; legs, black hackle; wings, grayish blue.

**SCARLET IBIS.**—Tail, scarlet ibis; body, red, ribbed with gold tinsel; legs, scarlet; wings, scarlet ibis.

**RAVEN.**—Body, dark green, ribbed with gold tinsel; legs, black hackle; wings, black.

**WHITE MILLER.**—Body, white silk floss ribbed with silver tinsel; legs, white hackle; wings, pure white.

**ORANGE MILLER.**—Body, orange silk floss ribbed with gold tinsel; legs, white hackle; wings, pure white.

**ROMEYN.**—Tail, barred wood duck; body, dark green mohair; legs, furnace gray hackle; wings, wood duck.

**BLUE PROFESSOR.**—Tail, scarlet ibis; body, bright blue silk; legs, brown hackle; wings, lead color.

**CINNAMON.**—Tail, two fibres of cinnamon-colored feather; body, cinnamon silk floss ribbed with silver tinsel; legs, brown hackle; wings, cinnamon color. This fly is sometimes dressed with a peacock herl body, and is then called cinnamon with peacock body. A good cinnamon-colored feather is very difficult to obtain. The wings and tail of the Bird of Paradise are the only good colored ones the writer knows of. The name sounds expensive, but in reality these birds are cheap, as, after the side plumes have been pulled out for millinery purposes, the bodies become almost worthless and may be purchased for a few cents.

**BLUE BLOW.**—Tail, a few fibres of glossy black hackle; body, brown mohair, picked out at shoulder to represent legs; wings, matched feathers from the secondaries of the blue-winged teal.

**PLUM.**—Tail, scarlet ibis; body, black mohair ribbed with silver tinsel; legs, guinea hen; wings, wood duck side feather (not barred).

**SILVER BLACK.**—Body, orange ribbed with black silk; legs, black hackle; wings, black.

**SILVER BROWN.**—Body, silver tinsel; legs, brown hackle; wings, blue heron.

**LOWERY.**—Tag, yellow silk; body, peacock herl; legs, brown hackle; wings, cinnamon color.

**GOLDEN ROD.**—Tail, scarlet ibis; body, orange-colored mohair ribbed with gold tinsel; legs, orange hackle; wings, rump hackle from the jungle cock.

**JUNGLE COCK.**—Tail, scarlet ibis; body, red, ribbed with gold tinsel; legs, claret hackle; wings, jungle cock rump hackle.

**STENT.**—Tail, yellow; body, lower half silver tinsel, upper half yellow silk floss all wound with fine gold wire; legs, scarlet hackle; wings, blue heron.

**EPTING.**—Tail, two or three fibres of ginger hackle; body divided in three joints, lower

joint red silk floss, middle joint orange silk floss and upper joint bright yellow silk floss, all ribbed with gold tinsel; legs, black hackle; wings, widgeon or teal.

**KINGDOM.**—Body, white silk floss ribbed with green silk; legs, brown hackle; wings, light brown turkey, with jungle cock shoulders.

**ADIRONDACK.**—Tag, yellow silk; tail, a few fibres from black hackle or black seal fur; body, reddish brown mohair; legs, orange hackle; wings, white, with jungle cock shoulders.

Nearly all of the foregoing flies may be varied and made a little more elaborate by adding shoulders of jungle cock, as in the last two.



## NOTES AND QUERIES.

[Under this Department Heading queries relative to Angling, Ichthyology and Fish Culture will be answered.]

### Is the Salmon an Annual or Biennial Spawner?

Years ago this subject was discussed among Canadian savans, and the great majority gave a verdict in favor of the annual spawning of salmon. I remember Prof. Hynds maintained they were biennial, but his proofs were not sufficiently strong. This matter, and it is a most important one, might have been decided years ago by properly marking the fish used in the piscicultural establishments when liberated, and, although not one fish perhaps in twenty escape the nets in the Bay of Chaleur, still between netters and anglers it could have been demonstrated to a certainty. No doubt there are some late fish in some rivers more than in others, but all are nearly ripe about the same time, viz.: from October 15 to November 1, there being in any case not over two weeks difference.

In large rivers, where the fish go far up, there are not many late fish to be found; the fish in small streams have sufficient instinct to keep out of them until ripe, being apparently aware of the danger of low water. I particularly noted this on the small streams in Prince Edward's Island (brooks, I would term them, not rivers). I watched a couple of small waters to obtain parent fish for the hatchery, and I had given up hopes—in fact, could not believe fish would enter them at all—but the guardian told me they would come, as he had seen some jumping in the estuary in August. On November 9, on going to the brook, I found there had been fish two miles up during the night, and saw a good many beds, but not a fish. The beds were finished. How finished, do you say? By six, eight or more large stones, as large as the crown of a hat, rolled on top of the disturbed gravel. Will any one doubt the instinct possessed by the fish to protect the

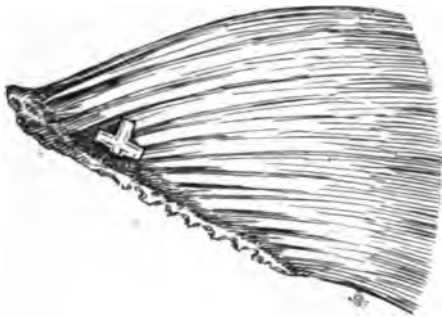
newly disturbed gravel (under which the ova lie) from being washed away should the stream rise? We know that many of the Scotch and English rivers, which are open to the angler until late in October, get what they call the autumn run, and no doubt those fish look better, having remained out in the estuaries for want of summer rains to raise the streams. The fish are very full of ova and near the gravid stage, but do not have the red appearance of the skin and fins which the spring fish three months in fresh water have. This fact struck me most forcibly when I first saw the parent salmon in the salt-water pond at the Tadousac Hatchery. I could not believe they were ripe until I handled them, owing to their color. The males also had so small a hook on the lower jaw that it would seem as if the salt water was not conducive to its growth.

I do hope some contributor will give us a sensible reason as to why this hook is there at all. It is on the wrong jaw to assist in making the ridd, and it is no use for fighting, as it takes half the mouth up and prevents the teeth from taking hold, and (Mr. Dennistoun notwithstanding) a large male at the gravid stage has a tremendous mouthful.

Before leaving Tadousac, in May, I ordered the party in charge of the nets for capturing the parent fish to bring to the pond half a dozen of the kelts, of which he told me he got large numbers. He did so, and, when I returned in the following October, I could easily tell them from the others. On examination the ova in the females had grown but little more than in a spring kelt; the males in the same condition. The fish had improved in flesh, the color had returned, and they were pronounced good, fair eating, but had not the fat or flavor of a bright spring sea fish. As to food in the pond, the tide rose ten feet, run-

ning into it through a four-inch wire mesh, carrying in small fish of all kinds. Why they were not more developed puzzled me not a little, as I saw plainly they would not be gravid until another year; but, presuming they had a free run of the four months in the open sea, they might have again returned in time to spawn. I dismissed the matter for a time.

In the months of May and June, 1890, I procured some nickel paper fasteners of different patterns. I marked six kelts, caught with fly myself. Some of the anglers marked a few more, probably a dozen, and some of



METHOD OF MARKING SALMON.

the tidal netters marked a few. The fastener was run through the dorsal fin and the ends turned back and pressed against the fin, as per illustration. One or two of those fish were got in the lower estuary nets in July, showing their slow progress to sea.

In the month of October, before the parent salmon were liberated at the retaining pond, I marked one hundred fish in the same fin, but in a different way. This spring (in April and May) I offered a dollar for each marked fish brought me with the fin or a description of the fish. On the 1st of June I had two of the fin marks (which I send you), both kelts, which took the fly twenty miles up the river above the point of liberation. Next day two more with the same mark, and on the 9th seven marked kelts were taken in one net at tide head. All those fish were marked in the previous October, as spent fish, on liberation,

and, instead of going to sea, they went up the river and were taken as kelts on their journey out.

I have only heard of two of the fish marked in the spring of 1890; one of the marks was sent me and the other was described. They were caught in the nets in the Bay Chaleur, both bright, clean-run fish from sea. The mark on one was grown over, the other nearly so, caused by the pressure on the fin. It may be said these fish came back in the fall of 1890, spawned, went to sea, and were again returning in the spring of 1891. If so, why did the October marked fish not go to sea? What kept them in the river all winter? It won't answer to say, "Oh! some went to sea and some up river." There can be no doubt that where one went "so did they all." If our salmon go to sea immediately after spawning, what retained my marked fish in the river? Was it because we took the ova artificially, pounded them up all summer, and they had to go up and have their time out? If salmon all go to sea in fall, where do the thousands of kelts come from in spring? Sure, unless they come in somehow, they could not go out. I know I may be told a run of fish come in late, perhaps under the ice, spawn in winter, and return to sea in spring and repeat the process. Perhaps this may be so in Great Britain, and on the Fraser and Columbia rivers there are different varieties which run in the different months, but nearly or quite the whole spawn at about the same time.

I think that the ovaries in a spring kelt are so very small, in comparison, that it would seem impossible for them to have the required growth to prompt the fish to ascend the river the same season for spawning purposes. As the marked fish ascend the river instead of going to sea (where they should go if they are annual spawners), I am compelled, in the absence of stronger proof to the contrary, to declare our North American salmon biennial spawners, which opinion I hope to reinforce conclusively upon the return, next spring, of the October fish of 1890.

*John Mowat.*

CAMPBELLTON, N. B., Nov. 12.

### To Preserve Fish for Mounting.

In reply to query of "I. W. K." we state that the easiest method for the sportsman is simply to remove the entrails through a slit in the belly, and seal the carcass up tightly in spirits; or, if the specimen is to be sent but a short distance and mounted immediately, a *strong brine* will answer as a preservative. To skin the fish, which should always be done if the specimen is large, make a flap of the centre skin on one side of the fish, choosing the side most injured by the gaff or loose scales. Make an incision from the back to the belly just back of the gills, along the belly to the base of the tail, and up again to the back. Raise this flap, carefully cutting the flesh away, and separating the fin from the body close under the skin. With this flap laid back, the dorsal and belly fins can be cut away from the body just under the skin, the backbone severed close to the tail and the fleshy body lifted out, cutting it away from the head last. Then all fleshy particles should be scraped from the skin, the inside of the head cleaned, eyes removed, etc. For the more perfect mounting of the specimen, any striking colors of the various parts should be noted, and the color of the eyes. After removal the skin should be thoroughly rubbed with salt or alum and kept in a cool place. The sooner it is shipped for mounting the better. In case of a large fish, such as a tarpon or large mascalonge, it is desirable to mount only one half longitudinally on a panel, in which case the flap turned back in skinning need not be preserved. A sharp knife and a pair of scissors are necessary implements.

### The Making of Flies.

Having read with great interest the two articles in October and November issues, I should now like to put in some spare time in tying flies and learning the names of the most common flies, etc. Therefore I will ask you: 1. About a good text book, giving names and time for appearance of the most common flies (if possible, with illustrations); 2. also names of artificial flies. J. Branne.

About the best book for beginners is "Blacker's Fly Tying." This book may be

bought of almost any large book-seller. As to the time of appearance of the different flies, this varies in different parts of the country. The best general rule is to use a light fly on dark or shady streams and at dusk, and a dark fly on light or open water. Many other anglers, however, use a reverse method and think it best. Ronald's book on fly tying, an English publication, is the only work that gives the natural history of the insects which we imitate, or attempt to, when making the artificial resemblance. Chubb, of Post Mills, Vt., issues a catalogue with illustrations of flies in colors; also C. F. Orvis, of Manchester, Vt., issues quite an elaborate one.

### Two Fish on One Bait.

While fishing in the Potomac for black bass, with a minnow as bait, I had a "strike." I hooked the fish, which proved to be a black bass of a pound weight. The water being very clear, I soon had the fish in sight, and noticed a second bass of the same size endeavoring to get the bait, which had been "spit" up the line some six or eight inches. After being out of sight for a while, I again reeled in, when I saw the two bass close together a second time. Quickly slipping the landing net under them, I got them in the boat, and found that the second bass was fastened in the following peculiar manner: The leader, at about a foot above the hook, was crosswise in the mouth, then down along each side outside of the ventral fins, behind which the parts leading to the hook and to the rod had four turns in them close to the fins, completely "bridling" the fish.

A. F. Dresel.

### The Use of The Lateral Line.

As to the uses of the lateral line other than those named in our October number, Mr. Thos. W. Frame, an experienced taxidermist, writes us that it has always seemed to him to be "the starting point from whence the skin grew."

Out of a great host of sympathetic letters on the subject of our compelled change from a weekly to a monthly issue, we cannot refrain from printing one from Mr. James B. Goodman, of Chicago, who gives cogent reasons why a weekly paper devoted entirely to one subject does not always retain its hold upon its special clientage. They get tired of reading it. It comes too often. Mr. Goodman writes us:

MY DEAR MR. HARRIS:—I have just found time to read the monthly *ANGLER* for October—No. 1 of the new style. I like the change very much. Possibly the lack of time to read a weekly among the more intelligent class of anglers, and lack of inclination to literature among the less cultivated, have both had an effect adverse to your publication in its weekly form. Our best anglers are those who lead busy lives and steal now and then a day from work to go a-fishing; or at best those who between seasons of stress of business take their vacations in the woods, where a paper or a book would be resented as an intrusion upon the enjoyment of Nature.

So when at home I have sometimes looked through the mass of weekly papers, piled unread, perhaps to find an advertisement of a tax sale or some such unesthetic matter, and I have had to regret that the force of circumstance must relegate so many copies of *THE ANGLER* to the same limbo as the Podstown Snapper, the Bugleville Revelle or any other weekly conglomeration of ink and paper.

But a monthly by force of habit gets better treatment. Its form lifts it out of the crowd of the common newspaper herd. Nobody throws away a monthly until after he has read it, and seldom then. It is also more readable because choice in its contents, and more enjoyable because the appetite of the reader is not cloyed by too frequent indulgence in the same variety of mental pabulum. I shall be greatly pleased if the monthly proves a great success, and well satisfied without any such weekly supplement as you propose.

Cordially yours,

Jas. B. Goodman.

Now and then we get a line from one of our distant friends that recalls angling associations of decades ago. From none are these reminders more earnest and welcome than those from Pat Warden, the veteran fly-tyer of Philadelphia. He writes us among other things:

The good old Philadelphia fly-fisher with whom you were well acquainted have mostly passed away. Dr. Kingsbury, the old salmon fisher, died some few weeks ago. I was very sorry, for he was a great friend of mine. Last November he wrote a very interesting letter, reminding me of trout flies that I tied for him some years ago, according to directions for dressing twelve flies by Dame Ju-

liana Berner, in "Book of St. Albans"—the earliest printed treatise on fishing with an angle, 1496. In "The Compleat Angler" Walton gives twelve flies, the directions for dressing being nearly the same as those in the Dame's book, but the celebrated Juliana is not credited with being the originator. No doubt Father Walton well understood the killing quality of the immortal worm, and little about casting the fly."

A meeting of the Canandaigua (N. Y.) Angling Association was held last month, which terminated in a banquet. Many speeches, abounding in practical suggestions, were made. Dr. C. T. Mitchell read an original poem, entitled "The Legend of Genundewah;" H. L. Hutchins recited "The Devil Went a-Fishing," and Rev. H. C. Townley told, in a humorous way, all about baits which he had found most alluring to fishes. The social reunion was a success, and the following officers of the association were unanimously elected: President, J. S. Crawford; vice-president, Dr. Hallenbeck; secretary, M. T. Powell; treasurer, H. H. Lane; attorney, O. C. Armstrong; executive committee, P. F. Leach, S. F. Wader, W. H. Fox, A. Padelford, Stuart Beard, Dr. Mitchell and H. Van Vechten. The treasurer reported expenditures of \$81.67; balance on hand, \$26.74.

Good plant and protective work is being done on the Rangeley Lakes. The Fish Commissioners of Maine contribute their share, but to the Anglers' Protective Club, of which Mr. Frederick S. Dickson, of Philadelphia, is president, must be credited the crowning glory of it, for the details of which we refer the reader to page 146 of this issue.

It is with extreme regret that we hear of the deep affliction that has fallen upon our old friend, Monroe A. Green, in the loss of his son Frank, who was associated, until recently, with his father in the management of the Caledonia State Hatchery. Young Green was esteemed by all who knew him, and his early death has cut short a life of much promise.

# FISHING AND FISHING WATERS.

## Salmon Fishing at Bathurst, N. B.

It was a lovely August morning, and, as I lay under the trees in front of the Keary House, sometimes reading, sometimes watching the skiffs on the bay, I was suddenly interrupted by Mr. F., who asked if I could leave my book long enough to try for a salmon at Brown's Pool. The book went out of sight before you could have counted two. A car load of commercial men had arrived in town the night before, and consequently not a horse was in the stable. "Why not take the pony?" suggested Mr. F. John soon had the little fellow hitched up and we started off. "Just see, he has a tail like a horse," said F., "and ears like a horse. Did you hear him sneeze? He sneezed just like a horse. Yes, and he's got feet like a horse, but his pace is more like an ox." We couldn't tell we were going by looking at the wheels; one could have more easily told whether a clock was going by looking at the hour hand. How we got there I will not attempt to explain further than by saying that we took our time.

Mr. Brown was at the mill when we arrived, and told us that no one had cast a line on the pool that morning. I put my eight-ounce fly-rod together, and one of the mill hands, who was looking on, scouted the idea of my taking a grilse on such a flimsy-looking affair. "Where do they lie?" I asked. "Do you see that little ledge out there?" I nodded. "Wal, if ye catch any, you'll get them out there." "Where do you stand to fish it?" I asked. "I generally stands in the water by that log there."

Mr. F. was casting a long line from the top of the dam before I could wade the stream and climb through the brush to the position by the old log. The trouble I had soon paid, for my friend had not yet taken anything, and, as my fly crossed the spot a second time, there was a break. I had no sooner struck when the fish went off at such speed that the reel stopped its usual click and screamed. "A grilse!" shouted F., as the fish went a foot into the air. Hardly had he struck the water when he was again off on another wild dash. Some fishermen sing the praises of the black bass, others tell of the trout, but I have never seen these fish beat the young salmon in their wild rushes and leaps. In the third run he twisted the leader under a stone, and only by quickly wading out into the pool up to my waist did I manage to save the fish. He had carried out forty yards in his first run, but was now beginning to feel his exertions, and before many moments was lying safely on shore. I waded back, waited a few seconds, and then began casting again. I had not cast many times before a fish had seized the Jock Scott, and before I could hold him he had gone way up to the dam. The rest was merely a repetition of the first, for he snagged me as the first one, but I again managed to unfasten it in time to avoid the usual consequences of such a move. Mr. F. had already put up his rod and was holding the spirited animal when I came up the hill. The two fish had given me a good morning's sport and a good appetite for the dinner which awaited us.

In the afternoon I met Mr. Bishop, who is the manager of the Bathurst Club. He kindly extended to me the privilege of fishing their waters on the morrow. I bought provisions at once, and then hired a team to take me seven miles up the river to the Indian Reserve. I could thus get the evening's

fishing, stay at Mr. Keary's camp, and get an early start in the morning for Pabineau Falls. I lost no time in securing a guide, taking the first one I saw. Here let me introduce Flannery, a man of no small person. He was an old salmon fisherman, and, as afterward proved, he was more awkward with a paddle than with the rod.

On arriving at the Reserve we had no difficulty in securing an Indian guide, getting one that I had been out with before. He was a clever young fellow, inclined, like most Indians, to be a little lazy, but on the whole a very good man.

It was time we were off; the sun showed it. Alec, the Indian, had finished splicing the salmon rod, and a minute's walk brought us to the river's edge. The Nipisquit is a fine stream, with its quick, clear waters and wooded bluffs. The guides had already placed the birch canoe in the water. I took my place in the middle and we started. On account of the swiftness of this river the canoe men pole almost all together. The men held the canoe with their poles when we came within casting distance of the upper pool. The water in this pool is not very deep, but flows with great rapidity. Two rocks at the lower end make a place where the fish like to lie. As the fly drifted down and came across by these, it was suddenly seized by a fine grilse, which came out of the water eight times before he touched the landing net, and then he jumped out of it and threw the fly from his mouth. At the next pool we hooked another, which did not succeed in breaking away. At the trout pool I took some fine trout, one weighing a pound and three-quarters; the nine others averaged over a pound apiece. The guides now suggested that we should try the island. We landed at the lower end and walked up to the rocks on the upper. While trying one of the pools for trout I hooked another grilse of about four pounds. I landed him without much difficulty, and then had to stop fishing, as it was growing late. We went to the tent and soon had coffee and trout cooking. The Indian hitched up his horse and drove a mile down the road and got some milk. He also brought up another blanket, for the night was cool. When the last fish was eaten, the last cup of coffee drank, we rolled up, and, before the fire had crackled thrice, we were all asleep.

I was awakened by the sound of "Breakfast ready" at an early hour the next morning. When we had finished, the sun was just brightening the eastern clouds with red light. I was first down at the landing, and had already taken a good-sized trout before the guides came.

Our plan was to go up as far as Pabineau Falls, fish around the falls, and then down some distance below where we started. Going up the river was delightful, the guides sending the canoe through the water at a lively rate. I stopped them to try one or two of the pools for a moment, and, while I was fishing Conway's Pool, one of the guardians of the river threatened to make things lively for us for getting a little too far out in the river. Different men's rights are always conflicting on this river, as the water is all divided up, one man owning half a pool and some other club the other half. The guardians are always looking out for parties, and if they get an inch too far over the boundary line they are likely to get into trouble. We left and heard nothing more from the man.

After getting nearly to the falls we came to some rapids,

which necessitated our leaving the canoe and carrying it around. The Crossing Pool was just above. On our arrival I got out and fished from the shore. Another *guardian* was sunning himself on a large rock across the river, and watched every cast I made to see that the fly *did* not go outside of Bathurst Club grounds. The Indian was at my side, with the gaff ready for a fish. Flannery said that he was going over to have a social chat with the fellow. He took a bottle of whiskey out of his pocket, and evidently was going to share a portion of it with the man on the rock.

A long streak of white, surging water, showed that the water flowing past the rock was going at no ordinary speed. The man on the rock smiled when he saw the unexpected treat so near at hand. Flannery had meanwhile been paddling on the right side of the canoe, and, as he came alongside of the rock, the white water struck the bow on the left, and, before you could have snapped your fingers, the canoe had tipped over, and Flannery was underneath it. A short interval of time passed and then a head appeared alongside the canoe; in a moment more Flannery pulled himself up and straddled the frail craft. The rapid water had already carried him to the end of the Crossing Pool, and we now saw that nothing could keep him from shooting the long series of rapids which were just below. I must say that I laughed heartily until I saw how seriously the Indian looked at the affair. I heard him exclaim, "Dead man! dead man!" The canoe that the guide was riding now leaped viciously, for it had already struck the first rapid. The guide was heavy, and the canoe sank at times several feet under the water. On one of these occasions struck a hidden rock; there was a crash, but the boat still held together, and on it went. As times it seemed as if it would be thrown out of the water; at others we expected to see it sink out of sight. Again the bow sank and struck another rock, and this time the shock was so sudden that the guide was thrown from off the bottom, and now only kept his hold on the boat with one hand. When he went over the next fall the boat was torn from his grasp and passed over his head. Fortunately he was over the worst places by this time, and after a few bad bumps on the rocks he was washed into a place where he managed to get his footing. The Indian and myself waded out with a long stick. The guide seized it and we pulled him in. Our rods, landing nets, coats, etc., were all swept away. The guide had lost his hat and gained a number of bruises, otherwise was all right.

By the time we had captured the canoe, or rather its remains, it was nearly noon. We went up to the club house and started a fire to dry off our unfortunate friend. He seemed to feel the loss of his hat more than anything else, and kept saying, "Oh! I feel so uncomfortable without my hat." He succeeded at last in making a dunce hat out of paper, and as soon as this was finished his spirits again revived.

Our fishing was spoiled. We could do little without the aid of a boat, and the canoe was past all hope of repair. We had the keys of the Bathurst Club House, and we soon made ourselves comfortable.

The house has a good situation near the river, and is furnished with nice cots, etc., to accommodate its guests for a week or so. The waters near the club house are very good.

I went down to Table Rock, and, changing to a yellow ranger, soon hooked a large grilse. He at last turned on his back, tired out, and at this instant the hook slipped out of his mouth, but by a lucky grab I managed to get him by the gill, and thus landed him in safety.

When we arrived home the men passed a great many jokes on the guide for his gallant sail down the river.

W. T. Morrison.

### A Big Black Bass.

If it be true that there is a standing reward for any one taking, with rod and line, a black bass weighing over six and a half pounds, Mr. James Dowling, of Bel Air, Md., is entitled to the prize. Yesterday he caught, in the Susquehanna River near Conewango Bridge, Md., a black bass which weighed, shortly after having been taken out of the water, seven pounds. This morning, when I saw it, it weighed six and a half pounds. It was twenty-three inches in length by actual measurement, and six inches through from the back to a point above the vent.

Mr. Dowling was using a plain lancewood rod and reel, an oiled silk F line and a 1.0 English Pennell hook. His bait was a brook minnow about two and a half inches in length. The fish upon striking moved off with considerable rapidity, and when hooked dashed backward and forward in apparently wild excitement. It took Mr. Dowling fully half an hour to land this big fish. Several times he brought it to the side of the boat, and each time when he stooped to grasp the leader the fish broke away and carried out nearly a hundred yards of line before it stopped. After a hard fight it gave up and was lifted into the boat.

Two weeks before, in the same waters, Mr. Dowling caught a wall-eyed pike that weighed six and a half pounds. It was twenty-eight and a half inches in length. F. W. Baker.

[There is no standing reward for a black bass of that size.—Ed.]

### Fishing in Northern Wisconsin.

Fishing for the last two months has been very good in the lakes tributary to Three Lakes, H. B. Hutchinson, of Columbus, Ohio, having caught the king of the season, a mascalonge weighing 38¾ lbs. The following is his score while here:

September 22, one pickerel in Big Lake weighing 16 lbs.; September 23, one mascalonge in Big Fork Lake weighing 23 lbs.; September 25, two mascalonge in Planting Ground Lake, weighing 21¼ and 38¾ lbs.; September 28, two mascalonge in Island Lake, weighing 17 and 19½ lbs.; October 1, one mascalonge in Planting Ground Lake, weighing 12¼ lbs.; October 2, two mascalonge in Planting Ground Lake, weighing 16 and 23¼ lbs.

Besides these they caught many bass, pike, etc., which are very plenty. A. E. H.

THREE LAKES, WIS.

### Indian River Mascalonge.

Mr. Geo. A. Monk, of Rossie, St. Lawrence County, N. Y., of whom mention is made in my letter published in your last issue, writes me, under date of October 28, that Mr. Getman, of Theresa, Jefferson County, caught in the Indian River, on the 9th ult., a mascalonge weighing thirty-three pounds, and next day another of thirty pounds weight, and that on the 18th one of twenty-nine pounds weight was taken out of the same stream by Mr. Pool, of Theresa, and on the same day Mr. Casey, of the same place, captured a twenty-four pounder. This report confirms what I had to say in the letter referred to about the angling attractions in Indian River between Rossie and Theresa.

Mr. Monk has not fished since I was at Rossie, but will go for the big mascalonge at the "Indian summer" period in this month, and if he does not beat the above record before the river is closed by Jack Frost, I shall be disappointed, as he has usually been "high hook" in pursuit of this noble game.

PASSAIC, N. J., November 2.

H. H. T.



### Letters from a Montana Ranch.

I have been so busy looking after the ranch business and seeing to the harvesting that I have not had much chance to put in the line for the speckled fellows. Yesterday P. M. was the first time for several days. My son was up to visit me, and I went out with him. The cool nights have stiffened the 'hoppers so much that I tried the minnow. We got twenty-seven trout and five whitefish. My son caught three of a kind that friend De Witt calls whales; one weighed four pounds two ounces, the other three pounds eleven ounces, and one half-pounder, which was all he took, and he caught them in the last ten minutes before we left for the house. I caught the rest, but none so large. He had begun to be disgusted with his luck, and was getting tired seeing me haul out a fish every few minutes, but, when he got those big ones, he said that was the kind he was fishing for, and his tired feeling left him very suddenly, and I certainly was more pleased to have him catch them than to have got them myself. Our weather is fine now; seems like the old September weather in your State.

I am more than ever satisfied that the minnow is the best bait for trout all the year round, especially for large trout. I say *bait* instead of lure, although the latter is more stylish and "edicated." The whitefish are now full of spawn, November being their spawning month here. June is the month for the trout to spawn, being several months earlier than spawning time in the East.

I don't think I have ever seen trout more plentiful in the Yellowstone River at this place than this fall for the whole time I have been here, now nearly nine years. I have had different parties ask me where are the best places to fish in the river. I tell them anywhere, as I don't have any trouble in getting them at any point. Some people that have been fishing with me tell me I can catch trout on the railroad track, from the fact that I never go without getting a nice lot of them. In all the time I have lived here I have never been out, not even once, without catching enough for a meal for a dozen people, and it has been a surprise to me that I should not have a bad streak some time, as the best fishermen sometimes don't get them.

Ducks and geese are now coming, and they go very well mixed in along with the trout, and I presume I get my share. I am expecting Judge De Witt and Governor Tooker in a few days, and I rather think we may do something with the line that will interest you, certainly shall if the weather holds good while they are here.

B. P. Van Horn.

FRIDLEY, MONT.

### The Angler's Protective Club.

This association has been in active operation for the past two seasons under the title of the "Franklin County Fish and Game Association." The name has been changed as indicated above, as the old name implied that the interests of the association were confined to but a portion of the lakes and streams embraced in the Rangeley and Androscoggin Lakes region while its object is to preserve and propagate game and fish in all the waters of this system.

The season of 1889-90 was too far advanced when our hatching house was finished to enable us to obtain any spawn from this region. We obtained, however, from Messrs. Stanley and Stillwell, the Fish Commissioners of the State of Maine, some 40,000 spawn of the land-locked salmon, hatched in our troughs a large percentage of the spawn, and fry were turned into streams tributary to Rangeley Lake in June, 1890.

During the season of 1890-91 we were again indebted to the Fish Commissioners of this State for a supply of salmon eggs,

and hatched some 12,000 fry. We took also from this neighborhood about 250,000 trout eggs, of which not less than 225,000 were successfully hatched. Of the salmon 4,500 were placed in Toothaker Brook, emptying into Cupsuptic Lake; 2,500 into Whetstone Brook, a tributary of Kennebec stream, 3,000 went to Kennebec Lake, 3,000 to Parmachenee Lake, 500 to Dodge Pond and 500 into the stream emptying into Smith Cove, Rangeley Lake. Of the trout 40,000 were placed in Whetstone Brook, 20,000 in Witham Brook, a stream emptying into Mooselucmeguntic Lake near Camp Bemis, and the balance, 165,000, were placed in Smith's Cove Brook, Haley Pond Brook and Niles Brook, tributaries of Rangeley Lake. It has been the aim of the managers to distribute the young fish in different localities, suitable for their development, and in proportion bearing some relation to the interests of those contributing to the funds of the club.

It is our desire to construct during the coming year one or more ponds on lands to be owned by the club, in which we may keep young trout and salmon until they are a year old and thus more able to care for themselves. For this purpose we will need about \$500, and special subscriptions are solicited from the friends of the association. For the coming season we expect to be able to make temporary arrangements for keeping our fish in a private pond, under our own control, but it is eminently desirable that we should own our own ponds as soon as practicable.

It is proper that we should acknowledge here the uniform courtesy and general support which we have received at all times from the Commissioners of the State of Maine, Messrs. Stanley and Stillwell. We also desire to extend our thanks to the Phillips and Rangeley, Sandy River and Maine Central railroads for generous financial aid in the past.

We urge the members of the club to call the attention of their friends to this meritorious work, to solicit aid from those interested in this region, either as residents or visitors during the summer season, to subscribe liberally toward the construction of the ponds, and to see that those in arrears for their annual dues make prompt payment of the same to the treasurer, Mr. Arthur L. Oakes, Rangeley, Franklin County, Me., to whom all remittances should be addressed.

Very respectfully,

FREDERICK S. DICKSON, President.

ARTHUR L. OAKES, Secretary and Treasurer.

On October 4 a mascalonge was caught in the Eagle Waters that weighed fifty-two pounds. It was four feet two inches in length and was taken in Boot Lake, eight miles from Eagle River Station, on the Milwaukee, Lake Shore and Western Railway.

At Embarcadero, near Sonoma, Cal., carp and catfish are so plentiful at low tide that large quantities are caught with rakes, buckets and pitchforks.

### PUBLISHER'S DEPARTMENT.

This is to inform our friends and the trade that we now also use aluminum metal for the trolling spoons, fish baits and anglers' specialties, in addition to some gold, high grade German silver, high grade brass, composition nickel and pure aluminum metals. We recently put in new automatic machinery, and are now turning these goods out by the millions. Our new catalogue for the season '92 will soon be in print. Sent *gratis*, post paid, to the trade only on receipt of a business card.

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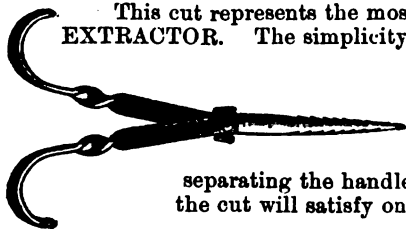
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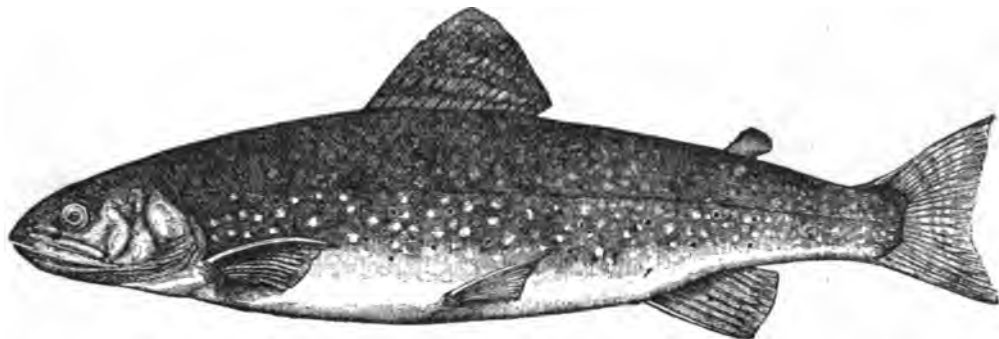
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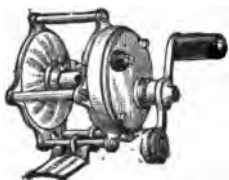
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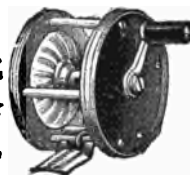


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FIGURE 1.—Shows Celluloid reinforcement for both male and female Ferrules.

FIGURE 2.—Shows male Ferrule, with reinforcement of Celluloid underneath German Silver Ferrule.

FIGURE 3.—Shows sectional view of the waterproof joint from shoulder up.

### WHAT THE ANGLERS SAY.

THE PARADISE PEN AND FEATHER CLUB, LAC DEL GRANDES ISLES, CANADA, July 14, 1890.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—I have handled some pretty good rods, but none has pleased me better than the five-ounce "Kosmic" which you built for me last May. I labored with it daily during the month of June, and lifted many heavy trout up to four pounds each, and then, in order to test its murderous qualities, tried bottom fishing with a four-ounce live perch for bait. The little perch went into the jaws of a four-pound trout, and in due time the trout went into my boat. This, you will concede, is a hard test for so light a tool, but it stood it like an old timer, and is worth all the praise I can give it. I like a rod with backbone—one that is tough and stiff in the middle joint; for after all a rod's work is done between the two ferrules, and in this most valuable essential my "Kosmic" is perfection. Besides, the artistic mounting and beauty of finish displayed in the rod won admiration from many accomplished anglers. The man who tries to make a better rod will have to hustle.

Yours respectfully,

RIT CLARKE.

A. G. Spalding & Bros., Chicago, Ill.—MY DEAR SIRS:—I know it will please you to hear a report on the action of the 4½-ounce "Kosmic" trout fly-rod you sent me—because it is emphatically a good report. With a half dozen rods of my own, it is the best one I ever had in my hand, and during a visit to Castalia this week, all the club members who saw it spoke highly of its admirable qualities. The keeper, also, who is a beautiful fly caster, said it was "the best little rod, and the biggest little rod," he ever saw. They know a good one when they see it at Castalia, too.

Yours sincerely,

CHAS. W. BURROWS,  
President the Burrows Brothers Company.

MY DEAR SIRS:—I never had a rod that hooked a fish as easily, and held it as well as my first "Kosmic." And in this respect the new rod works as well as the old, and I have already done with it some very good fishing.

Sincerely yours,

I. LIVINGSTON REES.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—I take pleasure in acknowledging the receipt of the little five-ounce "Kosmic" fly-rod which you have built for me. It is a "dandy," the best I have ever possessed. Its excellence, casting qualities, artistic mounting and beauty of finish displayed in the rod, commend it to all anglers. It is the most perfect rod I ever used, but I need not go into particulars, for, as a whole, it fills all my desires for a rod, and seems as near perfect as man can make it. It is a beauty as well as a perfect piece of workmanship. I shall now feel good all over when I go to rig my cast of flies. I congratulate you on your success in getting up so handsome and so excellent a rod.

Yours very truly,

GEORGE L. BRADFORD.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—The working of the six-ounce "Kosmic" rod, which I obtained from you, exceeded my most sanguine expectations. I took with it three black bass in succession, weighing respectively two and a half, two and three pounds. I was fly casting from shore, and, not having landing net with me, I had to drag the fish up a shelving rock; but the little rod stood the strain admirably. I have caught many bass with the same rod since, but none as heavy as those three. Notwithstanding the hard usage to which I have subjected it, its "line" is perfect and its "backbone" unimpaired. I can, and shall, cheerfully recommend the "Kosmic" rod.

Yours very truly,

SAM SUM.

Messrs. A. G. Spalding & Bros.—MY DEAR SIRS:—Referring to your inquiry about the Kosmic rod I purchased from you, I beg to say that I have found it absolutely perfect. I never could believe that so light a rod could be built so stiff and strong. I hooked six masacalongo on it and landed five out of the six; the other one was lost in gaffing alongside the boat. The heaviest fish I had on was about forty-two pounds, and the one I lost was about the same size, probably the mate of the first one, as it was struck only a few yards away. I can conscientiously say that the Kosmic is the most satisfactory rod I ever fished with.

Yours very truly,

J. CHURCHWARD.

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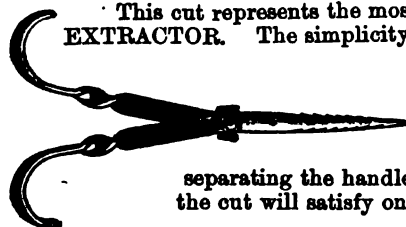
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How to Reach the Ncpigon. August 9, '84; January 31, '85.  
Fishing in Moosehead Lake. September 20, 27, '84.  
Description and Chart of the Fishing Waters of Lake Champlain. January 22, 29, February 12, '87.

## MISCELLANEOUS.

By-laws of a Fresh-water Club. August 18, '83.  
Description and Review of the American Anglers' Casting Tournament. October 21, 28, '82; October 20, 27, '83; October 18, 25, November 1, '84; October 24, 31, '85; May 28, June 4, '87.  
The Inner Nature (Senses) of Fish. May 16, 23, 30, '85.  
Best Plants for Carp Ponds. September 12, '85.  
Alaskan Fishes. September 26, November 7, '85.  
Game Fishes of the Northwest. May 24, 31, June 28, July 19, '84.  
Rocky Mountain Trout, Montana Grayling, Whitefish and Rainbow Trout—Description of and How to Fish for Them. January 1, 8, 15, 20, '87.  
The Game Qualities of the Trout vs. Those of the Grayling. January 29, '87.  
Reason and Instinct in Fishes. November 24, '83.  
Chub Fishing with the Fly. December 21, '81.  
Definition of Ichthyological Terms. December 13, 20, 27, '84; January 3, 10, 17, 24, 31, February 7, '85.

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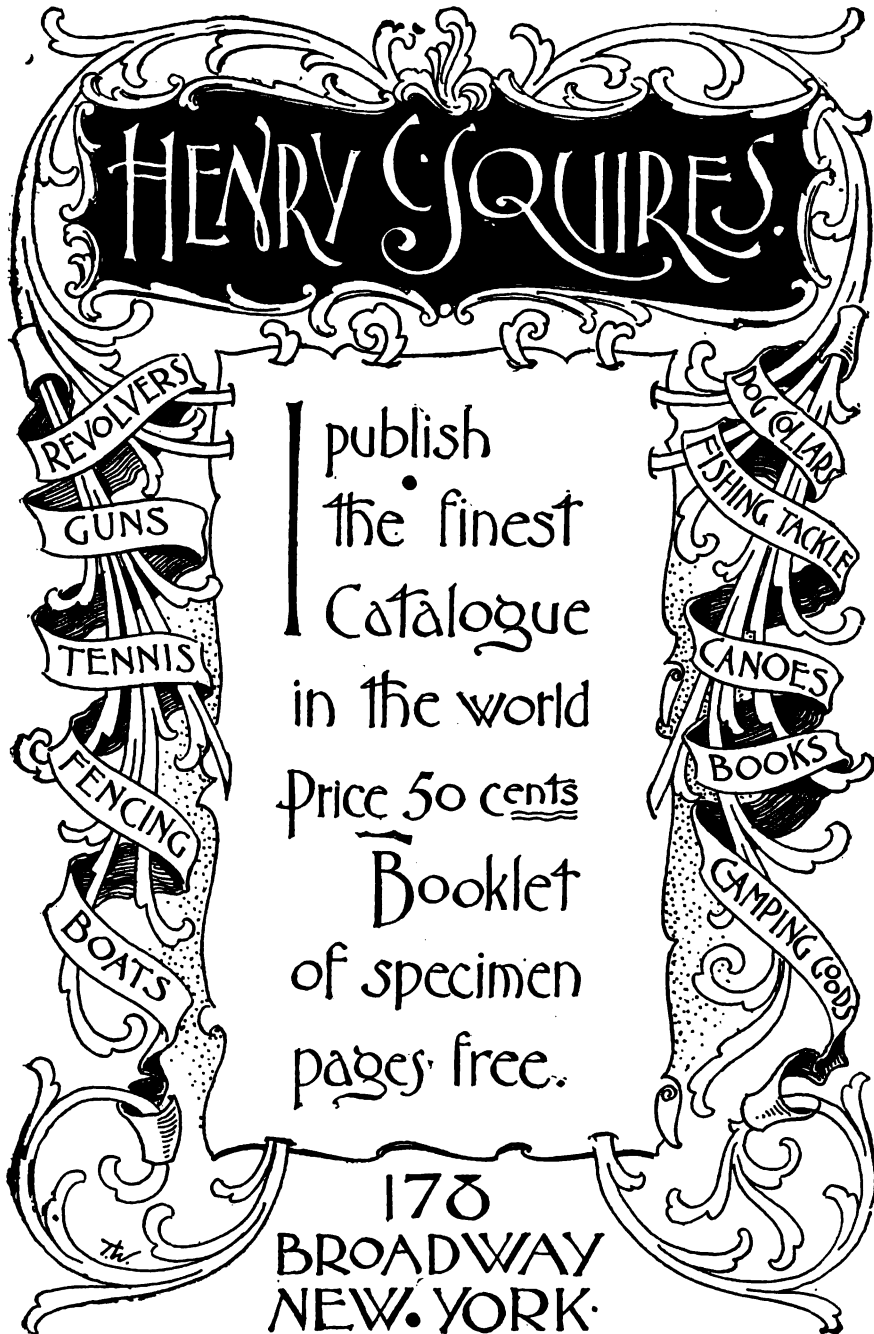
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# THE AMERICAN ANGLER.

VOL. 21.

JANUARY, 1892.

No. 4

## SHEDDING OF TEETH BY SALMON—REMINISCENCES OF THE RESTIGOUCHE.

By JOHN MOWAT.

When Mr. Dennistoun discovered the toothless salmon last year on the rivers of Labrador I rather think it surprised amateurs, professionals and pisciculturists as something new, if not incredible. I do confess it nonplussed me, and all I could say at the time was, "I did not think the Restigouche salmon followed the methods of their Labrador brethren." Mr. Dennistoun is, however, justly entitled to the honor (so far as I know) of being the first on either side of the pond to bring to public notice the fact that salmon do shed their teeth. It is quite possible that all fish shed their teeth; if not at periods during their entire life, at some period of it. We know all other animals do; why not fish?\*

During the past summer I have closely examined every salmon I got hold of, and have preserved the jaw bones of salmon caught in June, July, September and October, and I send you the specimens for examination, and I think they will go a good way in convincing any who may be sceptical. I examined fourteen salmon caught in August fifty miles up the Restigouche, at one of the famous pools (Patapedia). Some of these had been there or in the river from early spring; others, again, had only recently left the salt water. I could not tell this by their teeth, but from my long experience in

handling them in fresh and salt water; in fact, any angler deserving the name can tell an old red fish from a late run one. Every one of the fish examined by me had teeth, more or less, some four in the lower and six in the upper, others six and eight, others eight and ten, but all lacking their full proportion, and I particularly noticed that the larger the fish the more teeth it had. I found also some of the teeth in each jaw quite loose, seemingly clear of the bone and easily detached, and I also noted that the new teeth in the vacant spaces were quite flexible and had no penetrating power.

I have had the opportunity very recently of seeing and handling some three hundred salmon of all sizes, and no doubt of all ages, when they were being relieved of their ova. I am not prepared to say how old the eldest might have been. I had one, however, that I cut the adipose fin off in 1881. I marked some thirty fish in that year, previous to their release after being stripped, and I saw one four years ago, and the first fish referred to, which bore the 1881 mark, is the second. This latter fish must have been fifteen years old at least, and the poor fellow had forced his way so roughly through the seven-inch mesh nets that he was blind when caught in the Government nets; he would weigh fully forty pounds.

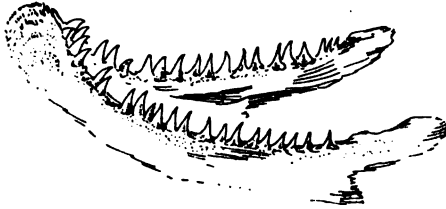
I particularly noted in all the smaller-sized fish in this lot some vacancies in their jaws—two and three teeth of a side wanting—while in the large fish, from twenty to thirty pounds, the jaws were quite full, and I think you will agree with me when you examine specimen No. 1, which has both wisdom and eye teeth

\* It is now generally admitted that all fishes constantly shed or renew their teeth during the whole course of their life. The value of Mr. Mowat's observations as auxiliary to those of Mr. Dennistoun centres in the question: Do salmon only shed their teeth during their migrations to fresh water? If this is decided affirmatively, it will create another factor in the much discussed subject of salmon feeding or not feeding in fresh water.—Ed.

cut, and I pity the man who would dare put his naked hand in his mouth.\*

Now the question arises: Does the removal

full-grown fish may not change their teeth at all, another season must pass before it can be fully ascertained. To sum up, my experience



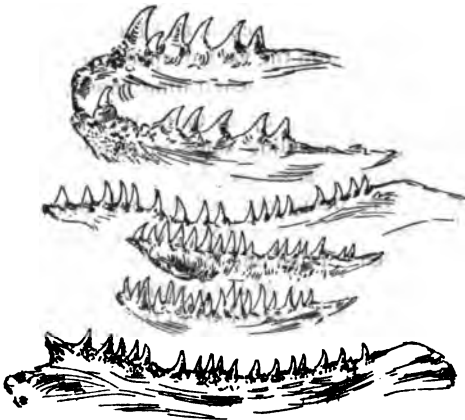
No. 1.—A male fish caught in Government nets at Tide Head on June 18; fresh run, bright fish; preserved in retaining fresh-water pond until October 26, when it was stripped for milt and killed; hook  $1\frac{1}{4}$  in. on lower jaw. This fish was caught in a scoop net, and broke two teeth out in upper jaw.



No. 2.—A male kelt, caught with fly at Deeside on June 3; weight, 16 lbs.; very lank; no signs of new milt; saw teeth were in vacant spaces, but were not ossified and were quite flexible. This fish had passed the winter in river and was on his way to sea.

of teeth take place in salt water or only in the fresh? I caught some fish that could not have been more than three or four days in fresh water, and at east six or eight of their teeth

is this: I have not found a fish quite toothless; every fish had a few; they evidently shed a portion at least; some small or young fish may



No. 1 —UPPER JAW.



No. 3.—A male fish caught in nets in salt water at Charlo on June 7; in prime condition and fresh run; 17 lbs. weight.

shed all on their entrance into fresh water, and probably some are shed before leaving the salt water. These lost teeth are replaced by others



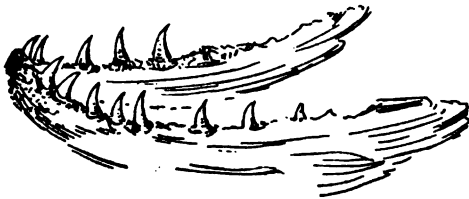
No. 4.—A female caught with fly twenty miles up river on June 20.; a bright sea fish in fine condition; full of ova; 18 lbs. weight.

were wanting. I have also seen salmon (see cut No. 3) caught in the Bay (pure salt water) with some of their teeth gone, but, as I had not got hold of the idea at the time that the adult

\* The lower jaws are only represented in the illustrations, except in cut No. 1, where the upper jaw is also given. Mr. Mowat has, however, very finely preserved specimens of all the upper jaws of the fish referred to, and will cheerfully offer them for examination to any one who is interested in the subject.

previous to spawning, or by October 15. The spring kelts going to sea in May and June are full-mouthed as my specimen (see cut No. 3)

shows; this jaw is from one killed by myself in May, a male, with condition "well mended." There is no doubt that he spent the winter in the river after spawning the previous fall. The new ovaries were about one and a half inches long and nearly as large around as a small pipe stem; weight of fish, sixteen pounds. If in good condition from sea the fish would



No. 5.—A female caught with fly forty miles up river on July 18; in fine condition; ova well grown; not very fresh run.

weigh probably twenty-four pounds. Many of these kelts are killed on their way to sea by anglers who don't know that the fish is foul until it may come to table, but an expert can easily tell a kelt after his first run, and generally unhooks it without the gaff. A good many of them get strangled in the estuary nets when they are poking around in the brackish water of the estuary before taking their final plunge to sea. When do they return? Has any person ever tried to solve this problem by any other mode than guessing? If so, I would like to hear from him.

One point more which I must take exception to in Mr. Dennistoun's article. Salmon enter fresh water solely for reproductive purposes (new teeth now one of them), and, unless driven out or killed out, will not return to tidal waters until that purpose has been fulfilled, and, in the great majority of the salmon family in our northern rivers, until six or seven months afterward; in fact, nothing will turn a salmon back—all the maple flies (*i. e.*, spear), or drift nets, or barred channels cannot do it.

In their journey up the streams the first run of fish push on rapidly to the upper pools and head waters, one hundred miles or more, unless prevented by insurmountable falls, with which most of the Labrador streams are well provided. Here fish have been caught sixty miles above

the estuary before one has been taken in tidal water. Some of the former remain in the lower pools, and are joined by others as the run progresses. Why is this? Have the fish any remembrance of where they spent their youthful days, and remain there whilst others pass them? It is now received as an undoubted fact that every fish knows its own river, but I go further than that, and think every fish has a particular place in the river where it wishes to remain. Were all the salmon in the Restigouche to push on to its headwaters, would not the greater portion of the river be barren? The turmoil at spawning time on the restricted spawn beds, the turning over of the newly-laid ova, could only end in wholesale destruction. Even under present conditions I am satisfied not over ten per cent. of the eggs deposited naturally ever come to life.

As to the speed with which they travel at times, I caught two salmon with partly digested caplin in them quite recognizable, and these



No. 6.—A female caught September 12; weight, 28 lbs.; very full of ova; much turned in color; taken thirty-five miles up river; a good many of the teeth would not bear cleaning and were quite flexible; no doubt the mouth would have been complete by spawning time, as all the fish examined by me at that time at the Government pond appeared to be full.

fish were caught sixty miles above where the caplin is known to come.

I have had some observing guardians under me on this river, and particularly on the Kedgwick, who have told me that, when fish are not disturbed, they never leave the pools in August and September, and, if a stray fish comes in, he is not allowed to join the band, but must keep a respectful distance. And these men, in



looking over the pools, after an absence of a day or two, could at once tell if the fish had been troubled or scared. An old trapper and woodsman named Campbell, a Highland Scotchman, as tough and ugly as a bear, had care of thirty miles of the Kedgwick River for some seven years, over which he poled along in his canoe twice each week. Coming to a pool one morning on his way up, he missed some of the fish, whilst the remaining ones would not allow the canoe to come near them; formerly he could sail gently over his "little flocks," as he called them, counting them over as he formerly did his sheep on the "Grampion Hills." He knew something was wrong, and a close search below the pool revealed slight signs of burnt debris. He had seen no signs of any persons on the river, and the facilities for hiding were so great in the numerous bayous that searching was of little use, and he well knew the pirates would not kindle fires. He therefore concluded to go on some five miles to the next pool, and he found everything right there; the fish were perfectly quiet as usual. He stowed his canoe out of sight and waited for events. Not long after dark he heard poles coming up, and into the pool the polers came and lighted pitch torches and commenced spearing the fish.

"Hello!" yelled Campbell. "What are you about? Come ashore here."

One of the spearers replied: "Don't you see we are getting a salmon for breakfast. If you want us come and take us."

There were four of them and two canoes; they knew Campbell well, and that he was alone; they were big French Canadians from the upper waters of the St. John, who had come through the carry or portage and stolen past Campbell the previous night.

"Now," says Campbell, "if you don't come ashore I'll send this fellow after you."

His gun was loaded with ball, but, sloping the barrel, he let a loose ball run down, believing he could scare them.

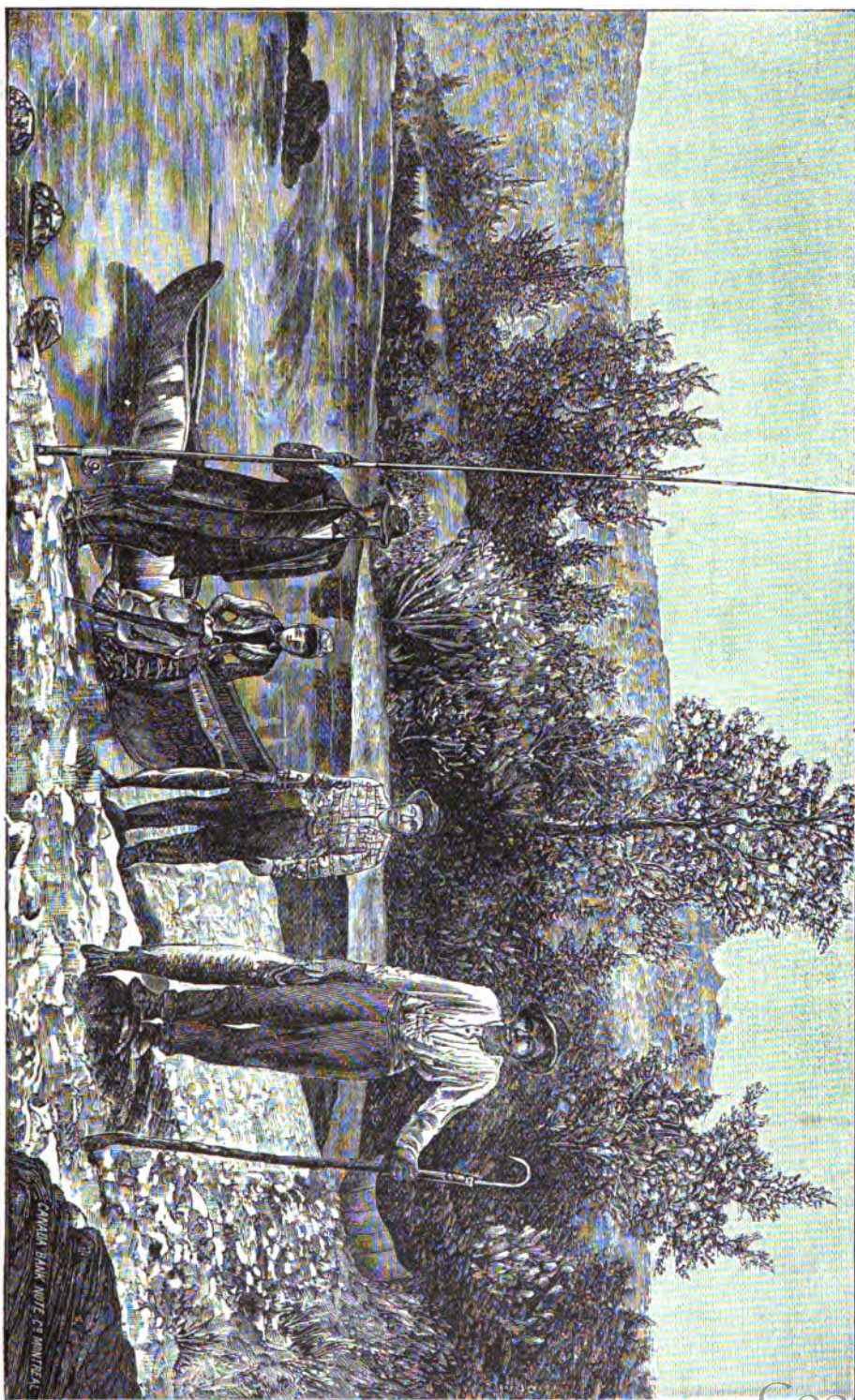
"Do you hear that, you scoundrels? Come ashore or I'll fire."

Not ten yards from Campbell in the pool the spearer in the bow of the canoe struck a fish and shook it off. Campbell's blood was up.

He covered the man's body, but, as he afterward told me, allowed the muzzle to drop before he pressed the trigger. The fellow fell, roaring, "I'm shot. Oh! I'm killed." Campbell blazed away with his revolver, not aiming for them now, as he believed he had killed the fellow. The other canoe did not assist, but ran down the river, the first following with the wounded man groaning, with Campbell following in his canoe sixteen miles to the mouth of the river by daylight. The ball broke the bone of the man's left leg below the knee, and the fellow had the cheek to demand from the Department of Fisheries a thousand dollars as damages. At the time Sir A. T. Smith was minister and Mr. McKenzie premier, and they could not see the claim. I got strict orders, however, not to shoot any more of them, but put them in jail, which was easier said than done.

The above is one of the many incidents connected with the dear old river, and helps my argument that salmon do not surmount the rapids of a river just for the fun of coming down again. In fact, a salmon would far sooner go up than come down, nor does he need coming down for a drink of salt water until he arrives the following spring for good. He loves to get to his old home, or near it, in some deep pool, where he can have a good social time with a lot of old friends, jumping and and tea partying until he gets under the doctor's hands about the 1st of November.

On looking over Fred Leland's last year's list of notables who go a-fishing, I notice our old friend W. J. Florence among the number. Peace to his ashes. He is remembered by his old friends here. Another old timer, for whom I bought the Mic Mac property, J. H. Baxter, has likewise gone to the happy fishing grounds, and his estimable lady has many sympathizing friends. Another genial gentleman was Judge Shipley, and so pleased was he with the Restigouche and with its pure air, that when leaving he said: "I am coming back. This has given me a new lease of life." But it was not to be, as he hardly got home before he died. General Sandford put in a few pleasant days, which he said "would never be forgotten. My fish cost me one hundred dollars per pound,



JUST IN FROM THE POOL.

but I am satisfied." Among Canadians to be remembered, Hon. Mr. Killally is one who, in three weeks in 1870, salted down eleven barrels at Indian House and Patapedia. Mr. Whitcher, of our Fish Commission, was so provoked at this slaughter that Mr. K. was thereafter tabooed. Mr. Whitcher without doubt was the best angler who ever threw a fly on this river. In his little canoe, twelve feet by twenty-four inches, he did all his work alone—hooked, played and gaffed his fish. So light and crank was this little craft that few of our boys dare cross the river in it. When the fish was hooked the butt of the rod was placed in a socket in his waist belt and a leather strap attached above the reel was taken between his teeth, leaving one hand free for the reel, the other for a double-bladed paddle. That strap with the teeth marks yet in it is the only memento I have of Whitcher. A cane of General O'Grady Haley is another memento. He was one of the old stock, and spent a few summers with us—a warm-hearted Irishman. I will never forget his story of a night sortie before the Redan at Sebastopol, when five Russians tackled him. He disabled two of them, but two more got their bayonets through his leg and thigh before his men reached him.

I dare say Samuel Wilmot as an all round angler stands first, but as he is still with us (and I hope will be for a good while yet), I must exclude him from these reminiscences. C. T. Brydges, now gone, was the most genial and the best liked by the guides of any who ever threw a fly here. I built him a boat sixty-three feet long and ten wide, with kitchen, dining room and four berths, decked over, with a long seat and rod box combined, and finally a canvas awning over all. It was towed up sixty miles by three horses and floated down with the current as wanted. The first year we used the boat (it was a gentleman's party—no ladies), as all of them were very verdant at salmon fishing, at Mr. Brydges' request I used to coach first one and then another of the party. In

trying to show them how "to do it" I was often tempted to use such Anglo-Saxon as I did to my own men, when things were not properly carried out, and much as I desired to relieve myself by a good round of it, especially when a good fish was lost or lines and rods broken, I dared not do so—to "majors and moneybags." Mr. Brydges had pressed me several times to name the boat, and I replied that "I will when I find a good name." One evening after the third pot had gone round, Mr. B. asked why I took the name of Cæsar in vain so frequently, or had I ever seen his ghost. I replied that I never had until this trip, and I used the word in order to prevent me from giving those friends of his a good cussing when they lost their fish.

"Good," said he. "Gentlemen, drink to the health and safe return of Great Cæsar's Ghost and her crew."

The boat ran for nine years, and many a pleasant time was had on her, and when I look at the drawings of her given me by Lady McDougald, I think I am again holding the lantern and noting the weights of the fish as they come in the dusk of the evening, or calling up the laggards to their 5 A. M. cup in the morning. One more angler who is still with us and I hope will enjoy many more seasons with his rod, is Mr. William N. Habersham. He has an eye for a "salmon lay" at all stages of water, and this can only be acquired by long practical experience. He has really the patience of Job, and few fish ever showed at his fly and refused, but what he would at last make them take hold. I think the most salmon taken on the Restigouche in the shortest time was by Fred Curtis, of Boston, at Patapedia Pool—fifteen fish averaging twenty-two and a half pounds in three hours and fifteen minutes; every fish being gaffed out of canoe. This was the year of the Fishery Commission. They had adjourned at Halifax from *labor* to *refreshment* at Indian House and Patapedia.



## HOW AN OLD FOUR-POUNDER WAS CAUGHT.

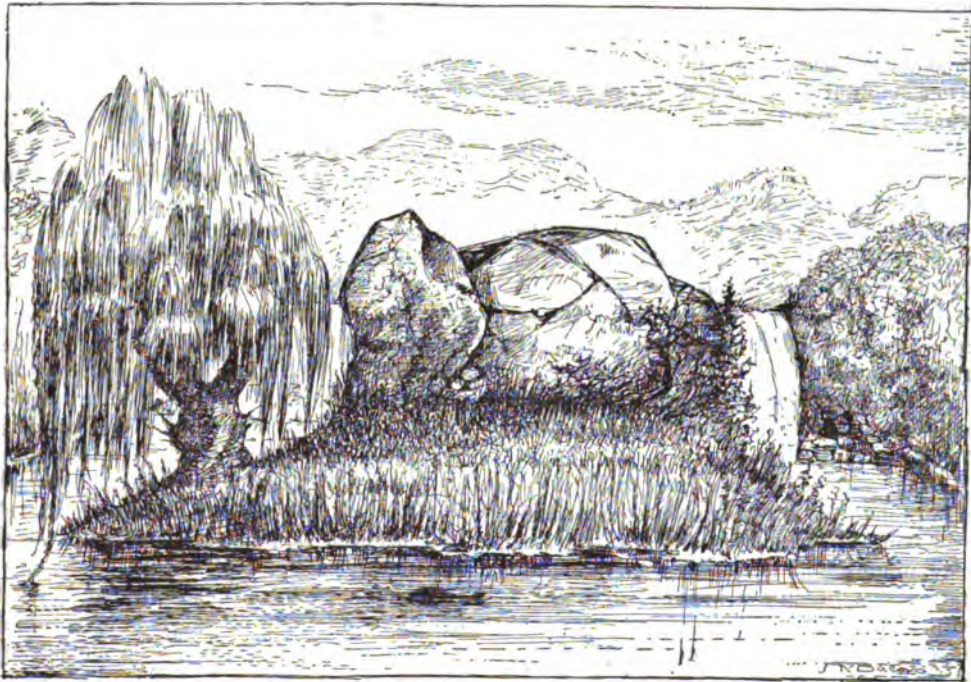
By WILLIAM C. HARRIS.

Below two immense rocks, that broke in half the white waters of the fall above, lay a quiet pool of three or four feet in depth, the home of our hero, an old black bass—*Micropterus salmoides*—big-mouthed.

We had long known the haunt and had often seen the giant of the pools lying, as if wholly

pool, leaving a broad, sun-lit stretch of the stream, across whose bosom a wind-borne leaf would cast a lengthening shadow; or, if perchance an angler approached from the western bank, a great Hartz Mountain spectre would loom up from the mirror below.

On either side of our bass' nook tufts of river



THE HOME OF THE OLD BRONZE-BACKER.

unconscious of the fruition of accruing ills in his fish life, under the shadow and the shelter of a root-welded bank.

It was a natty sort of a home for a domestic fish leading a widowed life.

The roof was a mass of knotted roots intertwined by the sturdy growth of a gray-barked willow, the tips of whose pendent branches lapped and rippled the waters just below where the rapid lost itself in the circling eddies of the

grass, with luxuriant growth, cropped out from the surface of the pool, waving to and fro obedient to the sweep of the dying swirls from the rapid above.

Far back, as in a cave, an old bare-fronted boulder, with here and there knots of water weeds cropping out from its clefts, formed a solid wall, impervious to the rush and wear of the frequent freshets of the river.

It was beside this boulder that our old vet-

eran would lie, protected by the bank above, and sheltered on either side by the dense growth of grass, with a wall of rock in the rear, and a glorious outlook for venturesome minnow or drifting bug in the wide waters of the pool in front.

Many a time we had lain prone upon the meadow grass and crawled, snake-like, for yards to catch a glimpse of this bass in his haunt, and a rare treat it was to watch him unseen as he lay basking in the straggling sunbeams that found their way through the willow branches above.

At such times he seemed to us the physical embodiment of all that indicates conscious power and lordly contempt of the meaner things of the stream.

We had often seen him hanging, balloon-like, in the mid-water of the pool, with head up stream, self-contained and motionless, holding himself poised, as if in mid-air, by the silent waving of his pectoral fins, while from his big mouth he lazily *purred* out, with a sort of languid mechanism, the impurities which the current swept around the upper side of his grass-protected home.

If it were not a sort of ichthyological impiety we would class the fishes among the ruminants or cud-chewing animals.

Living near the beautiful river that owned as an indweller this lordly fish, our opportunities for making a chart of his knightly traits and scaly humors had so grown from indulgence that he soon became a serious fish to us. In truth, that nook of his, and he in it, was so often the objective point of our daily walks, or rather crawls, that they soon absorbed more of our thoughts than was conducive to the health of our business habits, until, finally, this old fish became so oppressive and burdensome that we appealed for counsel and relief to the "gude wife," who, with a sweep of common sense, which we sometimes think women stow away for use on great occasions, at once exclaimed:

"Why don't you catch him?"

Now it is proposed to tell as briefly as we can how *we* "caught him."

Black bass in the rivers and streams above tide water have many habits identical with

those of the brook trout of our mountain streams east of the Alleghanies. They live upon the same animal and insect food, and may be found feeding like trout in the shallows and along the edges of the riffles, retiring to the deep pools for repose and digestion. At such times, when full fed, they are, we think, unlike the trout. They will not take the lure, although we have known them under like circumstances to kill young fish, seemingly for the love of destroying life, biting great bits of flesh from the backs of sunfish, and then sculling slowly away with what looked like a pleasurable flirt of the tail. Trout will gorge themselves to the lips—black bass will purr and play with the minnow bait, and sometimes suck it slowly down, tail first (when on the feed they invariably take it head first with a rush), then spit it out with force, sending it spinning three or four feet from them. They disport themselves as the day closes, like the brook beauty, by somersaulting into the air, and on favorable nights, when the twilight lingers or the moon comes early, we have observed them sporting, lashing the pools as late as 10 P. M.; in fact, we have had them to jump from between our legs when wading and fishing for them in mid-stream at night. Hence the trout fisher, whether bait or fly, finds a duplication of his pleasant experiences when angling for black bass in the upper waters of the rivers of our Eastern coast, and, as it has been said that a good trout rodster will quickly catch the art of successfully luring and handling salmon, so also we may aver that he will soon become an expert at bass fishing, with the additional charm of the same beautiful surroundings of hill and rock, dancing waters and pellucid pools that await him on the trout stream.

Our experience for years past had been confined to the use of bait, and we were familiar with the various kinds of natural lures; in fact, we had dipped, trolled, skittered, roved and still-baited even in the days of our pinafores, hence we naturally went at this old bass with the tools of a bait fisher.

Along the shores of the river above tide water may be found under the stones great numbers of the crayfish, fresh-water lobster or crab, as he is called by the natives. Catching

one of them and inserting our hook mid-way through his body, we went down to a point a few feet above the head of the rapid that foamed in its dance over the stones to the home of this big fish, and floated our tempting crustacean, as nearly as we could judge, right under the nose of our veteran. Once—twice—thrice, but—

No response.

Realizing that an error was committed in floating the crayfish down the current, as the bass always finds him with either his nose or a claw sticking out from under the stones, or catches him "on the fly" as he scampers from one hiding place to another, we stealthily crept under the shadow of the willow tree a yard or two above the pool, and keeping our rod (length ten feet, weight nine ounces) in the line of shadow, dipped our lure gently in the water, allowing it to sink to the bottom, upon which it crawled, urged slightly down stream by the drift of the current, but—

No response.

For at least fifteen minutes we waited, watched and guided the shellfish in his travels to and fro over the river bed, snubbing him now and then when he felt disposed to shelter himself under a protecting stone, but—

No response.

Leaving the pool almost in despair, and yet with regret, we went to the head of the dam and sought a new tid-bit with which to lure the hoary-headed bronze-backer.

A dime quickly started the energies of two boys, who were rollicking knee-deep in the shoal water near the breast of the fall, and we were soon supplied with a baby sunfish and a little "catty," each about two inches in length, the latter said to be of all baits the best for bass.

Inserting the upper hook through the skin of the "sunny" just in front of the dorsal fin, being careful to avoid striking the bone, and running the lower or "tail" hook into the "catty" tenderly through the lips, we again essayed the bass. From right to left and back again—again and again, until every square inch of the pool was finned by the little fingerlings, but—

No response.

Retiring to the bank discomfited, chagrined

and heart-sore over our failure, we were about to prepare to return home, when suddenly we were struck with what a fishing friend of ours calls "the enthusiasm of worms." We at once tore up the earth around the tufts of meadow grass, and found worms—plenty of them. Impaling them upon both hooks through the centre of the body, with heads and tails squirming, we soon had two bunches of worms that would have delighted an old "eel bobber." We floated them down stream, but—

No response.

We took out our Lorillard fine cut, twisted the tin foil around the leader, and let both line and lure sink and tumble over the baby boulders at the bottom of the riff, but—

No response.

We crept along the line of shadow to the trunk of the willow, and dipped our worm balls into the very eye of the unco scoundrel below, but—

No response.

We went afar off—found a chip—floated it down with our worms placed carefully as freight upon its deck, and just at the moment when the kind current swept our craft over the dwelling of the old minnow-killer, with a motion as tender and as gentle as a dying zephyr, flirted our lure into the water, but—

No response.

Difficulties enthused us. Going over to a little bay formed in the next pool above, our landing net soon scooped in a nice, fat, shining chub, silvery and lively, about three inches long.

"Ah! my fine fellow, this will take your eye and tempt your tongue," was our silent hope as we ran the hook between his two lips and placed him lovingly in the increasing current above the head of the rapid. We floated, dipped, cast, skittered, on the surface and in mid-water—loaded him down with "fine-cut," dipseyed and roved him, but—

No response.

We tried dobsons (helgramites), goggle-goys muscles, grasshoppers, toads, a young eel, a brown-barred mud-dabbler, but without avail. We got angry—jobbed our rod butt at the old scoundrel, wound up the reel line, and—

Started for home.

Reaching there, we found a visitor in waiting, our old city friend, Gill, who, after a hearty shake, put the question:

"Any fish about, Toodles?"

"There is one, Gill, that I'll swear to."

"That's not very promising, old fellow, for an afternoon's fish, but I'll tackle him if he weighs above half a pound."

"Weigh? weigh? why, he is a four-pounder if an ounce."

Now, be it known that Gill was a fly-fisherman, made his own rods, flies, etc., and, moreover, was just one of the nattiest handlers of the rod that ever worried a scale out of a home pool. He no sooner heard about our big fish—and you may be sure we were not chary in our description—than he at once cottoned to the subject, exclaiming:

"Let's be off at once—the clouds are gathering, so that in half an hour there will be a brown haze over the river, which is just the time to bamboozle the big fellows. Beside, a rippling breeze is springing up, and my flies will dance just about right over the pools. Come along."

In ten minutes we were on the bank of the stream and the lair of the big fellow pointed out to Gill, who, meanwhile, had adjusted his rod and arranged his cast of flies—two only—a turkey-winged fly as a dropper and a black and gray palmer as the "point" fly. He made a half dozen casts far down in the lower rapid to get, as he said, his leader and fly snoods in straight working order, and then made for the

breast of the dam, working his way down, with his flies skittering over every square inch of the rapid, that foamed and danced over the rocks until lost in the pool that sheltered our old veteran.

Gill cautiously worked his way down until his flies rested upon the tail of the rapid, and seamed it from left to right and back again. We noted the skill and caution in his method of playing his bugs almost tenderly upon the eddies of the expiring rapid, and how gingerly he made his advance over the bed rocks of the stream.

Reaching an outcropping boulder about half way down the rapid, where a thirty-foot cast would land his tail fly under the overhanging willow, he placed his left foot upon the rock and threw his flies, that fluttered like feathers in mid-air, and then fell, like fleecy down, within a few inches of the spot which we had pointed out to him.

As the flies fell the deed was done. The bushy gray and black palmer was taken with a swirl and a rush, and in ten minutes he was laid upon the bank, with his yellow and green and brown scales glinting, his broad tail flirting, and his great gills gasping in the death throes—a good four-pounder.

We had worked over him six long hours with our natural bait. Gill killed him in scarcely more minutes with his feathery lure and his eight-ounce rod.

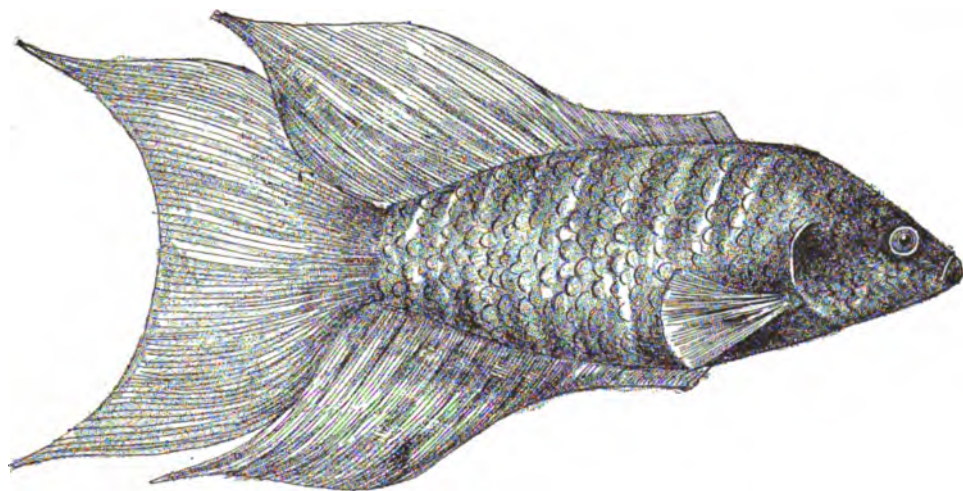
It was simply a case of deception.

## THE PARADISE FISH AND ITS BREEDING HABITS.

By HUGO MULERTT.

The paradise fish, like the German canary, is a product of cultivation, as there is no place known where it is found in a wild state. It is a native of China. There they are cultivated and kept in aquaria as ornamental fish only. The male is the larger of the two sexes, measuring, when full grown, from the mouth to the end of the caudal fin, three and a half inches. The body is shaped very much like that of the pumpkin seed sunfish. Its colors surpass in brilliancy any fish heretofore cultivated for the aquarium. The head is ashy gray, mottled

fins are protected by a brilliant scarlet-colored spine, extending three-fourths of an inch behind the fins. The pectorals, situated directly above the ventral fins, are well-shaped, but, being transparent, show no color. All these colors above described are most brilliant when the fish is excited. For instance, when engaged in combat for the possession of a female fish, or when courting, he shows the most brilliant colors, in order to attract the attention of his lady-love, she being especially fond of bright colors.



with irregular dark spots. The gills are azurine blue bordered with brilliant crimson. The eyes are yellow and red, with a black pupil. The crescent-shaped caudal fins are deep crimson; the former having ten or twelve vertical blue stripes, while the latter is bordered with blue. The under surface of the body is continually changing color—sometimes it is white, at others gray or black. The dorsal and anal fins are remarkably large, hence the generic name of the fish—*macro*, large; *podus*, the food or fin. Both fins are shaped alike. They are striped and dotted with brown and bordered with blue. The dull-colored ventral

On such occasions he expands all of his fins to their greatest extent. The caudal fin appears then to be covered with little pearls, like the eyes on a peacock's tail, and the under surface of the fish becomes jet black. The color of the dorsal fin changes constantly from brilliant green to indigo blue, now and then showing white spots, and, while the body is in tremulous motion, radiating colors of every conceivable hue. The female is smaller and not quite so brilliantly colored.

The entire body of the paradise fish, from the mouth to the beginning of the caudal fin, is covered with small round scales.



Their mode of living, when compared to American fishes, resembles that of the little dogfish and the rainbow-darter. Like the former, they come to the surface of the water for atmospheric air, and, owing to this faculty, will live and thrive in a remarkably small quantity of water. They are also fully as inquisitive as the dogfish, and like to stay near the glass side of the aquarium and hear what is going on outside of the water. Like the rainbow darter, they are fond of resting on rocks or on the branches of water plants. In fact, I have frequently seen them lie down as a person would on a lounge, their head upright and their body resting sideways on the bottom. They are graceful swimmers and peaceable, agreeing well with other fishes. Their food is the same as that used for goldfish, but it should be given to them oftener. Being tropical fish, they are rather sensitive to cold, and the water in which they are kept should never be below 55° F., while 70° to 90° is their favorite temperature. I am the first who imported this interesting fish to this country, and, having succeeded in breeding them, am enabled to add to the above description of the fish their mode of reproduction.

The paradise fish is a nest builder to a certain extent. Its nest is not as complicated as that of the stickleback, nevertheless it is a receptacle on which it places the eggs to be hatched. As soon as the warm weather approaches the males commence fighting with each other for the possession of the females. The victor leads off his female to a suitable corner in the aquarium, and here their family life begins. The nest is constructed by the male. In building it he takes a position about an inch below the surface of the water, and frequently takes air into his mouth, which he ejects in the shape of little bubbles. These bubbles seem to be covered with some viscid substance, which makes them last for several hours. He keeps this up until a little floating island is formed of about six inches in circumference and one-fourth of an inch in thickness. When the nest has reached the sufficient size the female approaches and swims around him several times until he notices her. He follows her now around in a circle, immediately under the bubble island, and all at once, with a very graceful motion, he seizes her by folding his

entire body and fins around her, at the same time turning himself with her over in the middle of the water, so that the ventral parts point toward the nest. Now he presses against her and causes the eggs to flow, which, in passing him, become fertilized and rise to the surface. This act being over, the male's attention is occupied by gathering the eggs with his mouth and placing them on top of the bubble island. Should one accidentally fall to the bottom, he carries it up again immediately. When all the eggs are cared for the female makes her appearance again, and repeats the operation until about a hundred eggs are laid. The eggs are of the size of a period used in ordinary type, and of creamy-yellow color. Thirty-six hours after the eggs are laid the young fish make their appearance. They are very small and have the shape of tadpoles. The father takes especial care of them, keeps them together and wards off enemies. One even attempted to attack my hand when on the side of the aquarium, looking upon it as an enemy coming to devour his little ones. During the first three days his object seems to be to keep his young near the surface, where they have abundance of air and where he can see them all; after that he scatters them by blowing among them. He is now seen very busy everywhere in the tank; and often gathers some weak ones with his mouth and spits them to the surface. This may be to instruct them how to breathe.

As the young increase in size his duty is to teach them how to find their food. For that purpose he takes a mouthful of young ones from a thickly-settled place and carries them to an unfrequented spot where food is more likely to be found. In short, he has a system about raising a crop of children. During all this time the female is kept in a far-off corner. He does not allow her to go near the nest, although I have never seen a female injure any of the young, which were sometimes close around her, some even nibbling at her mouth. When the young are ten or twelve days old they have the shape of the old ones and can support themselves. They are then one-sixteenth of an inch in length. At this period the male builds a new nest and a new crop of young is raised; this is followed by a third and fourth, until the approach of cold weather puts a stop to it.

## A MIDSUMMER OUTING.

By ARTHUR WALLACK.

In writing upon the delights of angling an old writer has said that "rivers and the inhabitants of the watery element were created for wise men to contemplate and fools to pass without consideration." There is a great deal of truth in this remark, for the mere taking of fish is but a small part of an angler's enjoyment. It is indeed remarkable how angling and the delights of the country have been at all times a favorite pastime with men of a contemplative turn of mind. In fact an angler enjoys the benefit of fresh air, bodily and mental recreation, without precluding social converse.

Sir Henry Wotton said that the hour he passed in angling he considered as idle time not idly spent.

Sir Henry was a great friend of Izaak Walton, and was noted in his day for his wit and scholarly attainments. It was he who gave the definition of an ambassador as "an honest man sent to lie abroad for the good of his country." Izaak Walton's beautiful pastoral has probably produced more anglers than all the other works on angling put together. He certainly knew but little of the science as we know it now, for his friend Sir Henry said of him:

There stood my friend with patient skill  
Attending to his trembling quill.

Proving beyond doubt that Izaak was a float fisherman and knew nothing of the delights and science of fly casting.

On a lovely morning late in August, in company with a friend (one of those genial, whole-souled men whose very presence seems to permeate the atmosphere about him with a sense of good fellowship), I stood on board the little steamer *Varuna* as she slowly glided from her wharf in the little town of Clayton. We were bound on a trip in search of the mighty mascalonge and the gamy bass. We had fixed upon no particular destination, but had determined to try the different points along the upper St. Lawrence above Kingston, until we met with success. We took as guides John Lalonde and Edward Denny, than whom no two better men

ever netted a fish or pulled an oar. It is scarcely necessary to say that we were plentifully supplied with rods and tackle of every description, in addition to which we were prepared for the slaughter of the inoffensive duck should any such be found foolhardy enough to come within short range. Our boats, two of the now far-famed St. Lawrence skiffs, were securely fastened on the upper deck.

The beauties of the upper St. Lawrence have been so often descanted upon that I will not attempt any description of them further than to say to those who have never been there, to take the earliest opportunity, and "stand not upon the order of your going, but go at once."

My friend, who probably has caught more mascalonge than any man who visits the St. Lawrence, not even excepting that redoubtable fisherman General Davies, proposed that our first stop should be at Hay Bay. As this bay is situated some five or six miles off the line of steamboat traffic, we were obliged to leave the steamer and row the distance in our skiffs. Toward evening we arrived at "Spencer's," and I cannot too earnestly recommend this comfortable farm house to all sportsmen who visit that region. The beds are good, the food first rate, and it is situated immediately on the bay and in close proximity to the best fishing and shooting grounds.

A rather curious incident occurred to me here. I was trolling one morning for mascalonge in the manner described by "Rod and Reel" in your October issue. The water being very dirty and covered with a thick, green, slimy scum and floating weeds, I had put about twenty-five or thirty feet above the spoon a "guard hook"—in other words a simple gang of three hooks—which materially aids in catching the weeds, thus allowing the spoon full play and at the same time (and what to me was of greater importance) preventing the everlasting pulling in of your line and divesting the spoon of several pounds of flotsam and jetsam. It was a very foggy morning and the sun had only just struggled above the horizon.



THE BAY OF QUINTE.

Flock after flock of wild duck flew past us, but well out of gunshot, luckily for them. I was lying back in my comfortable arm chair, dreaming of anything but mascalonge, when suddenly the bell attached to the starboard pole began to ring violently. To seize the guy line and begin to yank like mad was the work of a moment. I had only pulled in a few yards when I recognized the startling fact that a mascalonge weighing about ten pounds had made a strike at and got caught by the guard hook. In his struggles he tore himself free, but, still keeping his mouth closed, he allowed the line as I pulled it in to run through his jaws. Now comes the most extraordinary part of the story. As I hauled the line in another mascalonge took the spoon, the first one at the same time letting go of the line. I soon recognized that in the latter I had a large fish, and I played him carefully until I had him completely played out and at my mercy. For fully a minute we towed him, an absolute inert mass, weighing at least thirty pounds, when, without rhyme or reason, he gradually sunk out of sight.

When I had quite fully recognized the fact that the line had parted and the fish was lost, I uttered one holy howl of anguish and gave my guide immediate orders to row home. I had had enough.

Slowly and sadly we returned to "Spencer's," and there, amidst much sorrowing and wailing and gnashing of teeth, we told our sad, sad story.

When we came afterward to examine the line we found that the teeth of the first fish had so frayed and torn it as to render it practically useless, and hence the loss of what would have been the largest mascalonge caught in Hay Bay during our visit. Alas! "It was ever thus."

We remained at Hay Bay two or three days only, as we were somewhat disappointed at our poor luck, for, with the exception of the mascalonge I hooked and lost, none of the eight or ten we caught weighed over ten pounds. From Hay Bay we went to Deseronto, which place we reached after a most delightful sail of about ten or twelve miles. Here we caught the Varuna, and, having

placed our boats on board, we started once more on our hunt for good fishing.

About half past one we steamed up the pretty little harbor of Picton, named after the famous English General, he who led the fifth division at Waterloo and fell in the action. From Picton it is but a short drive to West and East lakes. These two lakes are really but inlets of Lake Ontario, separated from it by a narrow strip of sand which is frequently inundated. The fishing, which a few years ago was so good, is now, thanks to netting, a thing of the past. However, it is hoped that under the new protection law it may soon be as good as ever.

Through the courtesy of Mr. Ross, of Her Majesty's customs, we were enabled, with little delay, to procure the necessary permission to fish in Canadian waters.

From Picton we went to Belleville. On our way there a fellow passenger gave us such a glowing description of the fishing to be had in Pigeon Lake that our mouths fairly watered, and it took but a few minutes for us to decide to try the chain of lakes northwest of Belleville. On arriving at Belleville we went to the Queen's Hotel, and next morning early took the train for Chemung.

On arriving at Chemung we found a steamboat. I forget her name now, but I know that my companion was so impressed with her size that he thought seriously of buying her then and there for his children. After a most delightful sail in this lilliputian vessel, during which we went through Lakes Chemung and Buckhorn, we arrived at our destination, Bobcoygeon, a very pretty little village situated on the short, narrow stream which united Pigeon and Sturgeon lakes. There is a lock here, the latter lake being about twelve feet higher than the former. Here we put up at a hotel immediately facing the lock, where we were most comfortably housed and well fed. We can commend this hotel to all who are fortunate enough to have the time to visit this lovely region. We were up betimes the next morning, and it did not take us long to make our preparations. In a very short space of time we were in our boats. All that day we fished,





STONY LAKE, ONTARIO.

and our exertions were rewarded by *one* mascalonge of nine pounds.

Oh, ye gods and little fishes! Here had we journeyed in the neighborhood of two hundred miles to be met with such sport as this. However, there we were, and we were bound to satisfy ourselves as to whether there were fish to be caught or not. Upon diligent inquiry we learned that fishing in these lakes ends about August 15, but between that time and June 15 black bass and mascalonge could be had in large quantities, the former from one to four and a half pounds and the latter from five to fifteen, a few isolated cases being known where a twenty-pounder has rewarded the exertions of the angler.

Unlike the lower St. Lawrence anglers, they fish here for mascalonge with rod and reel, a much more sportsmanlike way than that used by Clayton fishermen. Having satisfied ourselves that the reports were true, we made up our minds (D. V.) to try our luck next summer some time in July.

Too much cannot be said of the beauties of this chain of lakes, Sturgeon, Buckhorn, Chemong, Pigeon, Stony, Scugog, Rice, Balsam and Gull. In fact for a hundred miles back the canoeist can sail, passing from one lake into another and through some of the loveliest scenery in the world. Scugog Lake is connected with Sturgeon Lake by the Scugog River, and the fishing in this lake is said to be very fine.

From Sturgeon Lake you can reach Balsam Lake, and thence to Gull Lake, and so on to Halisburton. The fishing in these latter lakes is reported as not being good. Good deer shooting can be had in the fall, and as for wild fowl I doubt if any better shooting can be had in Canada.

On our way back to Belleville we stopped at Peterborough, a most thriving and wide awake place, excelling any town we had so far visited in Canada for its energy and "goaheadativeness."

At Belleville we, by great good luck, found a place where oysters were to be had. They had just arrived from New York. My companion did not take long to so ingratiate himself with the lady who presided over the cui-

sine as to be allowed to take possession of the kitchen, where he proceeded to cook one of his celebrated chafing dish stews, for the concoction of which he has gained world-wide renown. After a few spoonfuls of this delicious compound our disappointment at Bobcageon and my sad experience at Hay Bay were alike forgotten. Everything past and present was tinged with a roseate hue, and as we viewed the future through a rainbow of promise we invariably thanked Heaven for our existence.

The following morning we started for Trenton, distant about fourteen miles. We rowed the distance, fishing and shooting by the way. At Trenton we found that quite a number of people from the States had been visiting the place, drawn there by the good reports of the fishing. On the register of the Proctor House I noticed the names of Messrs. Churchward, Dr. Hasbrouck, Christy and Macpherson, of New York. Our first two or three days were devoted to mascalonge, my companion being particularly partial to that sport. On the second day I was notably fortunate, having the good luck to catch and land with rod and reel a thirty-two pounder.

Of the gamy qualities of the mascalonge there can be no possible doubt, his decriers to the contrary notwithstanding. As to his leaping powers, I, for one, can testify, for the fish I have just referred to, on being hooked, came out of the water his full length, and to all appearance standing on his tail for the space of a second or so, and resembling nothing so much as a large black buoy. Shortly after catching this fish I had the rare good fortune to catch his mate (at least my guide told me it was the mate, for I believe it is an accepted fact that these fish travel in pairs), weighing twenty-five pounds. It was a proud and happy angler, I can assure you, that returned to the town of Trenton that evening.

The fish were duly weighed in the presence of a large and enthusiastic audience, and I was the hero of the hour, having, I believe, broken the record. I was, I need scarcely say, quite content to rest on my laurels as far as mascalonge were concerned, and during the remainder of our stay I devoted myself to black bass. We found the fishing for them excellent,



РІСОН, ОНТАРІО,

the fish, both for game and size, excelling anything we had hitherto met with, and such we found to be the verdict of all those who, like ourselves, were there in quest of good sport.

The days passed swiftly by—too swiftly—and it seemed as we grasped the hand of our old friend Dick Johnston, of the Walton House, and felt ourselves again under his hospitable roof, that but a few days instead of weeks had passed since we had left Clayton.

Of this delightful trip and of the many pleasures we constantly met with, of the many friends we made and from whom we parted with regret, I cannot write except with the happiest and tenderest recollections. Of him whose genial presence lent so great a charm and added so much to the enjoyment of our outing, I can never speak too fondly. I found him a true friend, a pleasant companion, a good fellow and a thorough fisherman.

It may not be out of place here to insert the following lines, ascribed to Sir Henry Wotton and written to his friend, Izaak Walton:

Good Izaak, let us stay and rest us here ;  
Old friends when near  
Should talk together oft, and not lose time  
In silly rhyme,  
That only addles men's good brains to write,  
While those who read bless God they don't indite.

There is a tree close by the river's side ;  
There let's abide,  
And only hear far off the world's loud din,  
Where all is sin ;  
While we our peaceful rods shall busy ply  
When fish spring upward to the dancing fly.

Our sports and life full oft contemned are  
By men that spare  
No cost of time, wealth, life, to gain their end,  
And often spend  
Them all in hopes some happiness to see  
In what they are not, but they mean to be.

We will not search for that we may not find,  
But dearly bind  
Our hearts, friend Izaak, in a tighter knot,  
And this our lot  
Here long to live together in repose  
Till death for us the peaceful scene shall close.

The Trent River, at the mouth of which lies the pretty little town of Trenton, is navigable for canoes with one or two short portages, as far as Rice Lake. This lake has been reserved by the Government, but on application a permit to fish can be had. Some years ago it fairly teemed with mascalonge and black bass, but a system of netting and poaching soon devastated the waters and the fishing became a story of the past. For the last two or three years, and since the Government took it in charge, the fishing has improved, though not comparable to what it was. From this lake, by means of the Otonabee River, the canoeist can pursue the even tenor of his way until Clear Lake is reached ; here junction is made with Stony Lake, one of the wildest and loveliest sheets of water imaginable. It is, in fact, a miniature Thousand Islands, the placid bosom of its waters being dotted with innumerable islets. Love-sick Lake and Fairy Lake form a continuation of this chain. In fact, for five hundred miles the canoeist can continue his uninterrupted course through a variety of scenery which, for picturesqueness and natural beauty, cannot be excelled in the world. When, in addition to this, is added excellent fishing, and, in the season, good shooting for deer and game of all kinds abound along the shore of these lakes, what more can man want to make life enjoyable. I of course have reference to sportsmen.

As a fitting conclusion to this article I will close with a quotation from our old friend Izaak:

" We may say of angling as Dr. Boteler said of strawberries, 'Doubtless God could have made a better berry, but doubtless God never did.' And so if I might be judge, God never did make a more calm, quiet, innocent recreation than angling"—a sentiment, I think, which will meet with a responsive echo in the hearts of all your readers.



## AMATEUR FLY TYING.

### FOURTH PAPER.

By S. K. PUTNAM.

Now I come to the fly that is tied any way and any how. No two dealers or professionals dress it alike. I have seen more than twenty styles of dressing. The silver doctor is used everywhere on all streams, and is, I might say, about the most popular fly in use. About the best description of a silver doctor for salmon fishing I have seen was that given in the columns of *THE AMERICAN ANGLER* a few months ago by one who wrote under the name of "Silver Doctor." His writings were wholly upon salmon fishing and dressing flies for that noble fish, and he evidently knows all about it. I shall not go into dressing of flies for salmon, but will only give descriptions of trout and bass flies.

For ordinary trout fishing the silver doctor is not dressed so elaborately as for bass or salmon. The one for trout is tied as follows:

Tag, gold-colored silk floss ribbed with silver twist; tail, a few fibres of a golden pheasant tippet; body, red, and ribbed quite closely with silver tinsel (the body is sometimes of silver tinsel ribbed with red silk or wool); legs, blue hackle; wings, strips of blue, yellow, barred wood duck, dark turkey, bustard, scarlet ibis and white; head, red wool. In tying this fly for large trout or bass add a few legs of guinea over the blue hackle.

About the neatest silver doctor I have seen was tied by Pat Warden, of Philadelphia, as follows: Tag, gold-colored silk floss; tail, golden pheasant topping and a few fibres of tippet feather; butt, black ostrich herl; body, silver *twist*; legs, blue hackle with guinea over; wings, widgeon and barred wood duck, with golden pheasant topping over all; shoulders, jungle cock; horns, blue and yellow macaw; head, red wool. This last style of dressing makes a beautiful fly indeed. I imagine it is Pat Warden's own design. He is entitled to all praise not only for this design, but for the many beautiful combinations of colors turned out by his skillful eye and fingers.

**ASHY.**—Body, orange; legs, a peculiar ashy

shade of hackle wound the whole length of body.

**BOB BARNWELL'S ASHY.**—Body, yellowish green mohair ribbed with peacock herl and a strip of yellow mohair laid along each side; legs, ashy hackle wound whole length of body; head, red wool.

The amateur will have great trouble in procuring the peculiar shade of hackle for the two last flies. It would be well to buy an "ashy" from some reliable house and keep it handy to match the feather at the first opportunity.

**THE FRANCIS.**—Tail, dark gray hackle; body, peacock herl ribbed with heavy cord of red silk floss; legs, dark gray hackle tied part way down body; wings, two dark gray hackle, feathers matched.

**IRISH GROUSE.**—Body, orange ribbed with gold twist; legs, dark grouse tied two-thirds way down body; wings, peacock swords.

**SPLIT IBIS.**—Tail, white and ibis; body, silver twist; legs, scarlet hackle; wings, matched feathers from the scarlet ibis, with a white feather between. The latter feather should be slightly longer than the ibis, so as to show at the end of the wing.

**YELLOW MOTH.**—Tag, black ostrich; tail, scarlet ibis and yellow; body, upper two-thirds white and lower third blue silk floss ribbed with gold tinsel; legs, scarlet hackle wound over the white part of body.

**RED TURKEY.**—Tag, dark blue silk; butt, black ostrich; body, scarlet silk floss ribbed with silver tinsel; legs, scarlet hackle; wings, mottled brown turkey, with heavy strips of scarlet ibis over.

**SILVER TURKEY.**—Body, silver ribbed with scarlet silk; tag of same; tail, yellow and ibis; legs, green and yellow hackle mixed; wings, mottled turkey.

**PURPLE TURKEY.**—Tail, scarlet ibis and white; butt, black ostrich herl; body, upper two-thirds purple and lower third orange silk floss ribbed with gold tinsel, and divided by band of black ostrich herl; legs, light yellow

hackle wound over the purple part of body, with deep yellow hackle at shoulder; wings, mottled turkey.

**MAGALLOWAY.**—Tail, short fibres of yellow and blue macaw; body, lower half brown mohair and upper half black ostrich herl ribbed with gold twist; legs, furnace gray hackle; wings, brown feather from peacock primary; head, black ostrich herl. In using the brown primaries of the peacock the amateur will have great trouble to get them to lie gracefully. A feather of the same shade is found in the two upright feathers of the wings of the mandarin duck. The flues of the latter are not so harsh as the peacock and are much easier to tie. The tail of the impean pheasant is the same color.

**NAMELESS.**—Tag, orange silk floss; tail, yellow and blue macaw; body, brown ostrich herl ribbed with gold tinsel; legs, dirty orange hackle wound from tag to shoulder; wings, strips of brown peacock, wood duck and wid-geon; head, peacock herl.

**STRANGER.**—Tail, a few fibres of brown mallard; body, brown mohair ribbed with gold tinsel; legs, brown hackle; wings, golden pheasant tippet below and dark mottled turkey on top.

**BEMIS STREAM.**—Tail, golden pheasant topping; body, brown mohair ribbed with gold tinsel; legs, brown hackle; wings, strips of brown peacock and dark and light bustard; head, black ostrich herl.

**OQUASSAC.**—Tag, yellow silk floss; tail, sprigs of argus feather and golden pheasant topping; body, claret mohair ribbed with pink silk floss; legs, claret hackle; wings, argus feather (primary); head, black ostrich herl.

**TINSELLED IBIS.**—Tail, a few fibres of barred wood duck and scarlet ibis; body, silver tinsel ribbed with gold twist; legs, scarlet hackle; wings, matched scarlet ibis feathers, with strips of barred wood duck on each side.

**CHATEAUGAY.**—Tail, a few fibres of brown mallard; body, lemon yellow silk floss ribbed with gold twist; legs, ginger hackle wound from tail to shoulder; wings, strips from wid-geon and argus; head, black ostrich herl.

**LONG TOM OF LONG LAKE.**—Tail, golden pheasant topping; body, gray squirrel fur

mixed with a little green mohair and ribbed with silver tinsel; legs, deep blue and claret hackle mixed; wings, strips of brown mallard, barred wood duck, brown peacock and upper coverts of wild turkey; horns, red and blue macaw; head, black ostrich herl.

**MOOSELAMAGUNTIC.**—Tail, a few fibres of argus pheasant; body, equal parts of gray squirrel fur and light green mohair ribbed with gold twist; legs, brown hackle; wings, gray speckled turkey dyed yellow, with a strip of argus on each side; head, green ostrich herl.

**RANGELEY.**—Tail, a few fibres of barred wood duck and scarlet ibis; body, dark claret mohair ribbed with gold tinsel; legs, dark claret hackle; wings, strips of wood duck (barred) mixed with a little wild turkey and scarlet ibis.

**BRANDRETH.**—Tail, scarlet ibis; body, yellow mohair ribbed with gold tinsel; legs, yellow hackle wound part way down the body and scarlet hackle (from ibis) wound at shoulder; wings, gray mallard.

**DEACON.**—Tail, gray mallard; body, yellow mohair ribbed with silver tinsel and round gold tinsel; legs, yellow hackle wound from tail to shoulder; wings, gray mallard; head, black ostrich.

**INDIAN ROCK.**—Tag, silver twist; tail, scarlet ibis and gray mallard; body, lower half silver twist, upper half peacock herl; legs, scarlet hackle wound half way down body; wings, matched scarlet ibis, with matched gray mallard on each side completely hiding the ibis; head, peacock herl.

**YELLOW FINCH.**—Tail, golden pheasant topping mixed with yellow and blue macaw; body, yellow mohair ribbed with silver twist; legs, yellow hackle wound full length of body, with guinea hackle at shoulder; wings, yellow feather, with strips of guinea dyed yellow at each side; head, black ostrich.

**MURRAY.**—Tail, sprigs of scarlet ibis; body, black silk floss ribbed with silver twist; legs, yellow hackle wound from tail to shoulder; wings, dark wild turkey; head, black ostrich.

**BLUE JAY.**—Tail, scarlet ibis; body, scarlet mohair ribbed with gold tinsel; legs, scarlet hackle; wings, matched feathers from English blue jay.

Another blue jay, and by far the better of the two, is dressed as follows: Tag, red silk floss; tail, golden pheasant topping; body, yellow silk floss ribbed with gold tinsel; legs, blue hackle, with guinea hackle over; wings, matched blue jay feathers, with golden pheasant topping over all.

**DARK ARGUS.**—Tail, fibres of yellow, white, scarlet ibis and wood duck; body, lower half red silk floss ribbed with silver tinsel, upper half bluish gray chenille; legs, crimson hackle, with blue hackle over; wings, matched feathers from back of red-breasted argus (*Tragopan satyrus*).

**LIGHT ARGUS.**—Tail, fibres of yellow, white ibis and wood duck; body, lower half blue silk floss ribbed with silver tinsel, upper half gold-colored chenille; legs, blue hackle, with crimson hackle over; wings, matched feathers from breast of red-breasted argus.

**BEATRICE.**—Tag, green silk floss wound with gold tinsel; tail, scarlet ibis; body, green mohair; legs, gray hackle wound from tail to shoulder; wings, wood duck, with a few fibres of tippet feather over.

**RAQUET.**—Tail, golden pheasant topping; body, lower half orange and upper half black mohair ribbed with gold tinsel; legs, black hackle wound down over black part of body; wings, mixed golden pheasant tail, argus, pheasant and gray teal feathers.

**WELOKENNEBAGO.**—Tail, black turkey tipped with white and scarlet ibis; body, red mohair ribbed with gold and silver tinsel; legs, scarlet hackle; wings, mixed black and brown turkey tipped with white and a few sprigs of scarlet ibis; feelers, red macaw; head, black ostrich.

**BLACK PRINCE.**—Tail, scarlet ibis; body silver tinsel; legs, black hackle; wings, black

**SILVER FAIRY.**—Tail, scarlet ibis; body, silver tinsel; legs, scarlet hackle wound from tail to shoulder; wings, brown mallard.

**PARMACHENEE BELLE.**—Tail, scarlet ibis mixed with white; body, pale yellow mohair ribbed with gold; legs, scarlet and white hackle mixed; wings, mixed scarlet ibis and white. In putting on the legs of this fly wind on the scarlet and white hackle together.

**ACADEMY.**—Tag, yellow silk floss; tail, scar-

let ibis; body, peacock herl; legs, brown hackle; wings, brown turkey.

**PROUTY.**—Tag, orange silk floss ribbed with silver twist; tail, golden pheasant topping, with a few fibres of English blue jay; body, lower half silver twist, upper half black ostrich herl ribbed with silver twist; legs, yellow (dyed) furnace hackle wound over upper half of body; wings, mixed teal and yellow feather and a little scarlet ibis and red macaw; head, black ostrich herl.

**JUNE SPINNER.**—Body, black ostrich herl wound with silver tinsel; legs, black hackle; wings, black.

**MOOSE OR YELLOW MOOSE.**—Tail, golden pheasant topping; body, yellow silk floss ribbed with silver tinsel; legs, yellow hackle wound from tail to shoulder, with guinea hackle at shoulder; wings, matched golden pheasant tippets, with strips of wood duck on each side; head, black ostrich herl.

**CUPSUPTUC.**—Tail, golden pheasant topping; body, silver tinsel wound with gold twist; legs, bright scarlet hackle wound from tail to shoulder; wings, mixed fibres of brown turkey tipped with white, brown mallard, golden pheasant tail and guinea hen; head, black ostrich herl.

**DOODLE BUG OR KADOODLE BUG.**—Tag, green silk floss; tail, gray mallard dyed pale yellow; body, lower half pale yellow, upper half orange and ribbed with gold twist; legs, brown hackle wound full length of body; wings, brown turkey.

**CONROY.**—Tag, peacock herl from sword feather; body, crimson silk floss; legs, green hackle, with guinea hackle over; wings, matched feathers from the white tipped tertials of mallard duck.

**ELLIOT.**—Tail, golden pheasant topping and a short bit of scarlet ibis; body, white chenille; legs, green hackle; wings, silver pheasant tail with a little scarlet ibis on each side. The tail feather from the Lady Amherst pheasant is better than silver pheasant, for the reason that there is more black in it and the contrast between the jet black and pure white is greater.

**TURKEY.**—Tail, scarlet ibis; body, yellow mohair ribbed with gold tinsel; legs, brown hackle; wings, brown turkey.

**EIGHTH LAKE.**—Tail, golden pheasant topping; body, first quarter claret mohair, balance of body black mohair ribbed with silver; legs, black hackle wound down over black part of body with claret hackle wound over at shoulder; wings, dark turkey tipped with white and a few fibres of guinea and brown mallard over all.

**SARANAC.**—Tail, golden pheasant topping; body, claret silk floss ribbed with gold and silver twist; legs, claret hackle wound from tail to shoulder; wings, matched golden pheasant tippets with strips of brown mallard and argus pheasant on each side.

**LIGHTNING BUG OR FIRE FLY.**—Body, lower third, yellow silk floss, upper two thirds, gray mohair ribbed with gold tinsel; legs, gray hackle wound full length of body, with grouse hackle at shoulder; wings, brown turkey.

**GRAY DUKE.**—Body, lower half red, upper half black and wound with gold twist; legs, guinea hackle; wings, brown turkey.

**ST. PATRICK.**—Tag, red silk floss; tail, three or four fibres of peacock sword; legs, gray hackle; wings, peacock swords.

**JENNY LIND.**—Tail, blue feather (dyed); body, yellow silk floss ribbed with gold tinsel; legs, scarlet hackle; wings, blue.

**MOOSEHEAD.**—Tail, golden pheasant topping; body, scarlet mohair ribbed with narrow gold tinsel; legs, orange hackle; wings, brown mallard with strips of golden pheasant topping over; horns, blue and yellow macaw; head, black ostrich herl.

**PAGE.**—Tail, scarlet ibis; body, buff color; legs, brown hackle; wings, matched scarlet ibis with strip of guinea or wood duck on each side.

**ROOSEVELT.**—Tail, brown mallard; body, lower half yellow mohair, upper half scarlet mohair and wound with gold tinsel; legs, yellow hackle; wings, blue heron.

**WOOD DUCK.**—Tail, wood duck; body, bright yellow mohair ribbed with silver; legs, bright yellow hackle; wings, matched wood duck feathers.

**PLATH.**—Tag, silver twist; tail, scarlet ibis; body, green mohair mixed with squirrel's fur; legs, scarlet hackle; wings, gray turkey.

**HUMBLE BEE.**—Body, orange chenille ribbed

with black chenille; legs, brown hackle; wings, light lead color, from the night heron.

**EDRINGTON.**—Body, orange chenille ribbed with black silk; legs, brown hackle; wings, the bronze feather with white tip from wild turkey.

**HOPATCONG.**—Tail, scarlet ibis and yellow; body, silver tinsel; legs, black hackle wound full length of body; wings, brown turkey with jungle cock shoulders.

**FERGUSON.**—Tail, scarlet ibis and yellow; body, yellow silk floss ribbed with gold tinsel; legs, green hackle; wings, brown turkey, scarlet ibis, yellow and peacock swords.

**BASS GRIZZLY.**—Tail, scarlet ibis; body, green mohair ribbed with gold tinsel; legs, gray furnace hackle; wings, gray mallard matched, with shoulders of small scarlet ibis feathers.

**ROUND LAKE.**—Tail, fibres of golden pheasant tippet and two fibres of blue macaw; body, lower half orange, upper half claret mohair; legs, orange hackle; wings, brown turkey matched feathers with jungle cock shoulders.

**RICH WIDOW.**—Tail, yellow; body, black ribbed with silver tinsel; legs, bright yellow wound full length of body; wings, black.

**LORD BALTIMORE.**—Tail, black; body, orange silk floss ribbed with black silk; legs, black hackle; wings, black with jungle cock shoulders.

**WHITNEY.**—Tail, green; body, green silk floss ribbed with silver; legs, green hackle wound from tail to shoulder (sometimes wound at shoulder only); under wing, yellow; over wing, night heron; head, peacock herl.

**LOTTIE.**—Tail, guinea hen and fibres from golden pheasant tippet; body, silver tinsel ribbed with gold twist; legs, bright yellow hackle wound from tail to shoulder; wings, dark turkey tipped with white, with a strip of brown mallard on each side; head, black ostrich herl.

**ELIZABETH.**—The description of this fly is given in the second paper of this series of papers.

**GOVERNOR ALVORD.**—Tail, scarlet ibis; body, peacock herl; legs, brown hackle; wings, blue heron with under wing of brown peacock.

**BROWN MILLER.**—Tail, brown mallard;

body, orange mohair ribbed with gold tinsel; legs, gray hackle; wings, matched brown from small feathers from under side of wing of jungle cock.

GREEN MILLER.—Tag, red silk floss; tail, throat feather from Hastings' pheasant; body, green silk ribbed with gold tinsel; legs, green hackle; wing, green matched feathers from parrot.

POST.—Tag, silver twist; tail, scarlet ibis; body, salmon-colored silk floss ribbed with gold tinsel; legs, black hackle wound full length of body; wing, wild turkey.

TUXEDO.—Tag, red silk floss; tail, bright yellow; body, silver floss ribbed with gold twist; legs, orange hackle; wings, curlew with narrow strip of bright yellow on each side.

CASSARD.—Tag, black ostrich herl; tail, wood duck, green parrot, yellow and scarlet ibis; body, scarlet silk floss ribbed with fine gold twist; legs, yellow hackle wound full length of body with scarlet hackle at shoulder; wings, matched wood duck with green parrot, yellow and scarlet ibis over; shoulders, small tippet feathers; head, peacock herl.

WARWICK.—Tail, orange; body, lower half silver tinsel ribbed with gold, upper half peacock herl; legs, orange hackle; wings, black and peacock swords.

MALLARD.—Tail, yellow; body, lower half brown, upper half yellowish floss and ribbed with gold tinsel; legs, yellow hackle; wings, matched gray mallard with jungle cock shoulders.

MARTIN.—Tail, yellow and black; body, yellow silk floss ribbed with gold tinsel; legs, yellow hackle; wings, teal.

PEA JAY.—Tail, yellow; body, upper half white and lower half dark red chenille ribbed with gold; legs, orange hackle; wings, matched scarlet ibis with white shoulders.

ORANGE COACHMAN.—Tag, black ostrich; body, orange silk floss with a few turns of peacock swords at shoulder; legs, bright orange hackle; wings, white.

FANCY MILLER.—Tag, black ostrich herl; tail, scarlet ibis and yellow; body, half yellow and half scarlet silk floss ribbed with gold tinsel; legs, black hackle; wings, matched white feathers with small scarlet ibis on each side.

RED MILLER.—Tail, scarlet ibis and white; body, white chenille; legs, scarlet; wings, scarlet ibis matched.

SILVER MILLER.—Tail, scarlet ibis and yellow; body, silver tinsel ribbed with gold twist; legs, yellow hackle; wings, matched white feathers.

FANCY IBIS.—Tag, black ostrich herl; tail, scarlet ibis and yellow; body, lower third scarlet silk, upper two-thirds green silk floss and ribbed with gold tinsel; legs, orange hackle wound half way down body; wings, scarlet ibis matched feathers.

PELLEE ISLAND IBIS.—Tail, black; tag, black ostrich herl; body, red silk floss ribbed with gold; wings, matched scarlet ibis.

GOGEBIC.—Tag, scarlet silk floss; tail, scarlet ibis and white; butt, black ostrich herl; body, yellow ribbed with fine gold twist; legs, scarlet hackle wound from butt to shoulder; wings, white matched feathers with small ibis on each side.

WHITE MOTH.—Tail, scarlet ibis; body, white chenille; legs, white hackle; wings, matched white feathers.

SPECKLED DOLLY.—Tail, white and scarlet ibis; body, silver tinsel; legs, scarlet hackle wound from tail to shoulder; wings, matched guinea hen.

JUNGLE DAISY.—Body, red silk floss ribbed with gold tinsel and a few turns of bright green chenille at shoulder; legs, guinea hen; wings, very light gray mallard matched feathers with jungle cock shoulders.

I have now given a description of about all the standard flies used for bass and trout. Of course there are many others, some used in only certain parts of the country and others designed and used only by private parties and their friends. Even if time and space would permit it would be impossible to give anything like a complete list.

With this paper I end my series of letters on "Fly Tying for Amateurs." I will not attempt to go into the salmon flies. I leave that for some such able writer as "Silver Doctor." His knowledge on the subject is so great and his descriptions so good that I would like to read something more of the kind from his pen. These letters, such as they are, have been

written more out of good will toward the angling fraternity than anything else, and I only trust that they may be the means of encouraging a few of the anglers to try and help themselves.

As I am only a fisherman and an amateur fly tyer, my descriptions will be severely commented upon and laughed at by the dealers and professionals. As no two of them dress their flies alike, each one will select such descriptions as agree with his and say that all the others are wrong. Let the fisherman and would-be fly tyer judge for himself. If you want any proof, select a few of the flies whose descriptions call for bustard, argus, Hastings pheasant or yellow macaw feathers, and request three dealers to furnish them. You will be charged a dollar or two (or more) extra per dozen, as the feathers are expensive, you know, and you will get a little argus, but probably

none of the other three feathers in your flies. The dealers will not pay the price demanded for these expensive feathers. I would further say that I doubt if any of the professionals in this country can show an inch of the blue and yellow macaw feather. They use blue and ~~red~~ macaw instead, taking it for granted that the fisherman does not know the difference, and in ninety-nine cases out of each hundred he don't.

I suggest here that it would be a good thing for the prominent dealers to meet together with some of the well-known and experienced fishermen, to decide upon and establish a set of flies that may become standard. Then we will know what we are to get when we order flies. At present we order flies with golden pheasant topping and get dyed yellow feathers; bustard, and get turkey and peacock wing; wood duck, and get mallard or teal; yellow macaw, and get red macaw or not any at all.

## AN OUTING ON THE TIPPECANOE.

By G. W. GRIFFIN.

What an outing it was! The city, with its business cares and worry, its heat and smoke, its crime and misery, to be lost and forgotten in the freedom, pure air and innocence of the country.

With two fly and two bait rods, three Frankfort reels, lines, leaders, flies, hooks, etc.; time enough and to spare; fish until you get your fill; come home when you get ready; place, down in the old Hoosier State, on the beautiful and picturesque Tippecanoe, where friends and a good old-fashioned country welcome await your coming—it would gladden the heart of the chief of anchorites and make him feel kindly toward himself and all mankind.

Such, brother anglers, was the cheerful outlook as seen by the writer on the 30th day of last July, as he took the 6.30 A. M. Pan Handle train for Winamac, Ind. Winamac was reached at 10.40 A. M., where a lover of the rod and reel was in waiting with his carriage to take myself and belongings seven miles down the stream to Squire Woods', whose place we reached in time for dinner. The Squire has sheltered and fed me a week or two each fall for the past ten years, and though the contract this time was a pretty big one, he seems to have performed his part of it without any apparent loss of either mental or physical vigor, however much it may have depleted his pocket-book.

I found the river at a lower stage and with more grass in it than I had ever seen in my former visits, while the grass was alive with minnows, either condition being unfavorable to good fishing; and, while the three combined somewhat dampened my ardor, I lost no time in idle complainings, but went to work at once to get all the sport possible out of the unfavorable condition of things, trusting the near future might bring a higher stage of water that would take out the grass and drive the minnows into the numerous small creeks tributary to the river, thereby destroying the hiding places of the bass, and at the same time materially cut off their food supply.

The clearness of the water was not conducive to good fly fishing, but, as I had often promised myself to thoroughly test the fly on this stream, now seemed to be the time and the opportunity. Therefore the first half of my outing was devoted to fly casting, and locating the boulders, sunken logs and other likely haunts of the small-mouth; and while my score never reached above nine bass in a day's outing, and none of above two pounds in weight, a freer, happier or more healthful angler never waded a stream, or ate his noonday lunch in the grateful shade of forest tree, or quenched his thirst from the sparkling spring at its roots, while the grand sights I saw and the things I learned about fish and fishing would fill a large book.

Nature was clad in her most beautiful summer garments, and yet a little while, like a shy and modest country maiden, she began to lay aside her summer drapery—here a little, yonder a little more—for the more beautiful robes of early autumn.

Whether the bass enjoyed the beauty and grandeur of the changes going on above their hidden houses I shall leave for others to answer, and deal with the things most painfully apparent to the lone angler, who was doing his "level best" to lure them from their haunts. The long-prayed for rain did not come, the grass held on with provoking tenacity, and what few bass came to his string were as fat as Thanksgiving turkeys.

"It is a long lane that has no turn," and what it was expected the rain—that did not come—would do was brought about to a greater or less extent by the frost. After two or three nipping frosts the grass began to sink to the bottom, and the resident fishermen commenced to get out their rattlers and visit the marshes, with the view of making "a corner" in this year's frog crop.

Meeting, soon after my arrival at Squire Woods', my old friend, Robert Lowry, who is considered to be the "boss" rattler fisherman of the country, I had agreed to build him two bait rods, upon the condition that he would

give up rattler fishing and become an angler in the true sense, and the rods now being ready for use, he sent me word one evening that he would be down the next morning to go for minnows. I well knew the full import of this message; it was as though he had said: "I shall begin fishing to-morrow with my new rods, and be with you as long as you may stay, if that be until the river closes up."

Noon of the following day found us back from our tramp for minnows, with five or six hundred as fine ones as ever tempted the appetite of a hungry small-mouth. After a hearty dinner, such as a half day's seining for minnows, however plenty they may be, will fully qualify the most dyspeptic angler to partake of with impunity, we took to our boats and inaugurated our fall fish, ending it with the bad weather which set in the middle of November. The last fish taken were boated in a cold, soaking rain.

We caught our fish by casting the minnow over sunken logs, round large boulders and the outer edge of the grass, save an occasional one that we would take by leaving our minnows out on going to shore for lunch, or in trolling over a likely stretch of water in going from one log or boulder to another. I think fifteen bass will cover my catch by trolling and still-fishing.

It will always be a matter of regret that I did not keep a record of my catch from the beginning, but I did not, and any estimate of the number and weight of my fish previous to the record would be mere guess work, and so unreliable as to be unsatisfactory to both the reader and myself. The record I did keep covers the last season or eight weeks of my outing. During this period there was one off week, with cold north and northeast winds, and two and three fish a day was the best I could do. The following is my score: 35 bass, 1 lb. each; 12 bass,  $1\frac{1}{4}$  lbs. each; 53 bass,  $1\frac{1}{2}$  lbs. each; 19 bass,  $1\frac{3}{4}$  lbs. each; 48 bass, 2 lbs. each; 10 bass,  $2\frac{1}{4}$  lbs. each; 24 bass,  $2\frac{1}{2}$  lbs. each; 10 bass,  $2\frac{3}{4}$  lbs. each; 12 bass, 3 lbs. each; 9 bass,  $3\frac{1}{4}$  lbs. each; 8 bass,  $3\frac{1}{2}$  lbs. each; 10 bass,  $3\frac{3}{4}$  lbs. each; 9 bass, 4 lbs. each; 6 bass,  $4\frac{1}{4}$  lbs. each; 3 bass,  $4\frac{1}{2}$  lbs. each; 1 bass,  $4\frac{3}{4}$  lbs.

From the above it will be seen that I returned

to the water all under one pound; that more of one, one and a half, two and two and a half pound fish were taken than any other size; that four and three-quarter pounds was the heaviest fish taken, and that the 269 bass making this score averaged two pounds, with forty-one and a quarter pounds to spare.

Mr. Lowry's catch was not equal to mine, for the reason that he did not fish as continuously as myself, and rod casting was entirely new to him, though he soon caught on and could and did get his minnow in the right spot surprisingly often. He was laying off for several days gathering his corn, and, while he was thus engaged, I broke our record by taking my four and three-quarter pound fish. I lost no time in sending him word of the catch, but despatched the first messenger I could find, and who returned with the request to keep my fish yarns to myself and to bring back his three bass. Some hungry individual had broken into his meat house a few nights before and carried off three of his best hams.

His corn housed, he took up fishing again, when one morning, as we were getting into our boats, he proposed that we go up the river some distance, he taking the right and I the left side. We had fished all our favorite logs, boulders and tree tops for a mile or more up the stream without a strike, and even two-thirds the way back to where we proposed eating our lunch. I was cold, hungry and in no very good humor when he pulled over to my side and asked how many fish I thought we would take before reaching our lunching place. I answered, "Not a blank one," when, with a half serious, half comical smile and tone—which he can assume to perfection—he replied: "If I was not ashamed to offer to bet with a gentleman to whom I already owe three bets, and who reminds me of my indebtedness every few hours, I would go you the cigars we catch a fish between here and our lunch." Stipulating that it was to be one of a pound or more, I accepted the wager. We each had two logs on our respective sides of the river, my last one being almost directly opposite his first one. I had fished my first log and made several casts over my second one without obtaining the slightest evidence that there was a bass within



a hundred yards of either place, when there came, wafted across the river on the noonday breeze, a yell of triumph that would cause a Piute chief to sneak into his hut and hide in very shame. Others of equal force and shrillness followed; then, in a more gentle voice, came the words, "Why the d—l don't you holler?" On pulling over to where L. was, he was not slow in informing me that I had lost the cigars, but any regrets I may have had over my loss never assumed shape, for, on making a cast just below where L. had taken his fish, I was immediately "up to my ears" in business with a three and a half pounder, and, on boating my fish, I turned around to L., and, with a smile of commiseration, remarked: "While I have lost the cigars, it is some consolation to know that I have taken the largest fish." I had not as yet seen his fish, though he had had a fair look at mine. He made no reply, but assumed an air of confidence and satisfaction I did not understand until we reached the shore. L., taking the lead, reached it ahead of me, and was in the act of weighing his fish as I stepped out of my boat, and between his shouts of joy announced its weight as "four pounds and three-quarters *strong*." I think he would have gladly given up the best horse on his farm to have had that bass tip the beam at five pounds. And I know I would have been sorely tempted, long before my outing was over, to have given "my kingdom for a horse," either to give up or ride away on, had the darned thing weighed five pounds. As it was, I heard the weight of this fish mentioned so often and under so many and varying circumstances, and always with the affix "*strong*," that I imagined the birds warbled it and the morning and evening winds whispered it.

This is but one of the many enjoyable incidents of the trip, but, for fear of making this article too long, I shall henceforth confine myself to the more sober happenings of this long-to-be-remembered vacation.

Some time during 1890 there was quite a discussion in THE ANGLER as to how high a small-mouth would jump when hooked, and, if my memory is correct, the discussion suddenly ended with an editorial of five or six lines, in which Bro. Harris expressed a doubt if they

ever cleared the water more than eighteen inches. At the time I thought I knew this to be contrary to my experience, but, as it was not my funeral, I remained silent and "said nothings." That some bass—perhaps a large majority—do not clear the surface more than eighteen inches is no doubt true, and it is equally true that others exceed this limit. Eighteen inches is a baby to what a number of my catch this fall made; a leap of two feet above the surface was not uncommon, and I had one three-pounder to clear the water as much as three feet. I am as cool and clear-headed as the next one when I hook a fish, and, as I carry my bait in a galvanized iron minnow bucket instead of in a glass bottle or a stone jug, I will not come down an inch from the above figures; it is below rather than above the distance he made, and I could but wish that so grand a leap for liberty might result in his freedom. The small-mouth will leap higher, leave the water oftener, fight longer and with more spirit when hooked in the lower jaw than when hooked in the upper, and the chances of his final capture are about one in the former to three in the latter. In a number of instances, where the water was not above three to five feet, I could see every move the fish would make, and at times as many as three or four would make a dart for my minnow at the same instant, and, to my surprise and chagrin, the smallest one in the school would get there first, as a rule. At first I sought consolation in a few well-selected "cuss words," but, finding the account against me piling up too high for an easy conscience, I took what comfort I could from the thought that "at another time one or more of the big fellows might add to the beauty and weight of my string."

Never in all my fishing have I had bass to spit out the minnow as they did on this trip. In fully three cases out of five the minnow would be spit out and found above the snell on boating the fish, and several times, while playing the hooked fish, I could see another old cuss trying to appropriate the minnow above the snell as it was being hurried through the water by the mad rushes of his more unfortunate kinsman.

This would seem to knock the pins from un-

der the old theory that a second fish will not take the upper fly after the first one is hooked on the lower one. The best catch I made in one day at any one log was five fish—two of four pounds each, two of three pounds each and one of two pounds, and all in about three hours. That evening I had the pleasure of introducing eleven to my live box. Was I proud and happy over my day's work? Go ask the small boy with his first pair of red top boots. If he cannot answer you go to Bro. Ad. H., of Indianapolis, who, on seeing and fondling one of the four-pounders, exclaimed: "It is worth the best farm in the State of Indiana to catch such a string of fish." But if still unanswered, "Go thou and do likewise," and when you have obeyed the command, and are seated on the banks of your favorite stream, with freshly lighted pipe, fondly gazing on the result of the day's sport, and your own feelings do not furnish you with a far better and more satisfactory answer than tongue can tell or pen or brush picture, you are not built of the same material of which anglers are made; and when you shall have bequeathed your tackle to some true lover of the rod and reel, you will have lived out your usefulness among men, a soulless wretch, fit only for "treason, stratagem and spoils," and an "unwept and unsung" grave.

The grass-pike, from six to eight inches long, I found to be the best minnow for casting. They stand more hard usage than any other

variety I have run across, and will lure a bass from his hiding place where a silver-side or chub will meet with "a cold shoulder."

Frogs are the favorite bait with many of the resident rattler fishermen, but a half day's fishing, without a strike, with a lively little cuss, beautifully and gaudily decorated with green and straw-colored markings, satisfied me that in the economy of Nature the frog was created for other purposes than as food for black bass, therefore "the beginning and the end were the same day."

One of the most pleasing features of the trip is the fact that the increased sport and success attending minnow casting over that of rattler fishing were so self-evident that several of the most noted visiting and resident rattler fishermen expressed themselves as converts to the former, and promised to meet me next season with rod and reel instead of with their unsportsmanlike rattlers. May this small beginning grow and take hold of all who visit this beautiful stream, until they realize that true sportsmanship in angling is found in the mode rather than in the quantum of the catch.

But outings, as well as most other things, have an end, and now, with rods tenderly laid away, lines dried and reels cleaned and oiled, we will submit with becoming grace to the inevitable, uncertain changes of another year, believing that "the gentle art will live on, while nature is nature and mankind is man."

## A UNIQUE CONSTITUTION AND BY-LAWS.

By CLINTON LLOYD.

While living in my native city of Williamsport, Pa., a generation ago, I was appointed chairman of a committee to draft a constitution for the organization of a game club.

An accident that occurred in a trout fishing excursion, by which I badly fractured my leg and was laid on my back for six weeks, gave me ample leisure for the onerous task which had been laid upon me, and resulted in the draft of an instrument which was so perfect in all its parts that I have determined to give it to the public through the columns of THE ANGLER, without any charge for use by others for royalty:

### CONSTITUTION OF THE WILLIAMSPORT GAME CLUB.—PREAMBLE.

Whereas it is proper that not only men, but beasts, birds and little fishes "should have a fair chance for their lives," and an opportunity to obey the earliest injunction of the Creator to "increase and multiply," and whereas it is to our interest, as well as that of the aforesaid "beasts, birds and little fishes," to afford them what protection we can, now, therefore, in consideration of the premises, and professing no higher motive than our own selfishness, thus showing how much more honest and candid we are than other constitution makers, we do ordain and establish this constitution for the government of ourselves and all others whom we, in the exercise of our sovereign will and pleasure, may admit into our association.

#### ARTICLE I.—NAME.

The name we adopt is the Williamsport Game Club, but if anybody thinks he "can make game of us," "let him try it on."

#### ARTICLE II.—OBJECTS.

The objects of this club shall be to promote our own enjoyment and to protect all sorts of beasts, birds and little fishes, except rattlesnakes and copperheads, which everybody knows are "pizen."

#### ARTICLE III.—OFFICERS.

The officers of this club shall consist of a

president, vice-president, secretary and treasurer, and who shall be those already elected, and shall hold their offices during good behavior, or until a majority of the members shall decide that they ought to be turned out, this being hereby declared to be an inalienable right of this club. No office shall be hereditary, because, as good enough men often have bad sons, it is easy to perceive how the interests of the club might be jeopardized by permitting offices to descend in the same family.

#### ARTICLE IV.—QUALIFICATIONS OF OFFICERS.

No person shall be elected to the office of president who does not believe that a "dorg" is the next best thing in creation to a woman, and no person shall be elected vice-president who does not believe exactly what the president does. No person shall be elected secretary who cannot read his own writing, nor treasurer who does not know how to keep other people's money, or who plays a bad hand at poker, or is ignorant of the mysteries of a jack-pot, as in such case there would be great danger that the funds of the club might be lost.

#### ARTICLE V.—DUTIES OF OFFICERS.

As this club is composed only of gentlemen, "they are not to be taught their duties," but will discharge them properly, of course, without their being constitutionally prescribed, and if they should fail herein, may they never crunch a partridge while they live.

"And doubly dying may they go down  
To the vile dust from whence they sprung,  
Unwept, unhonored and unsung."

#### ARTICLE VI.—MEMBERSHIP.

All persons who have heretofore "forked over" their "leetle steepends" on the call of the treasurer shall *ipso facto* be considered members of the club on their signing these articles. New members may be admitted on a vote of a majority of those present at any regular meeting, on due proof of their inability to kill more than one bird in twenty shots, this being necessary to the very objects of the club,

to wit, the protection and preservation of the game.

#### ARTICLE VII.—CERTIFICATES OF MEMBERSHIP.

Certificates of membership shall be issued to each member, signed by the president and secretary, which shall be in shape of a card for convenience in carrying, but no certificate shall be delivered to any person who has slighted the treasurer's polite invitation to "dough up." And if any one is disposed to "kick up a muss" for being refused a certificate for the aforesaid reason, let him say "what he is going to do about it." Such certificate shall entitle the holder to shoot birds "in due season"—that is, if the birds have no objection—and to hunt on any farm with the owner's consent, and to ride free on any railroad in which he can make the conductor believe his certificate is a railroad pass.

#### ARTICLE VIII.—MEETINGS OF THE CLUB.

The club shall meet whenever the president shall think it necessary, of which necessity he must judge at his peril, taking care not to waste the precious time of the members by calling them together on frivolous pretexts, and he must be equally careful not to fail to convene the club when its cherished objects are in danger; and if this puts him between "the devil and the deep sea," his compensation must be found in the honors of his office. The club shall also meet on the call of the treasurer whenever the exchequer needs replenishing, and on such occasion any member who fails to attend or to send in "the castings" shall be deemed a slink and summarily expelled, unless he satisfactorily explains his absence.

#### ARTICLE IX.—CONDUCT OF MEETINGS.

In the meetings of the club every member shall have the right to say what he pleases, as this club maintains as a cardinal doctrine the "freedom of speech," but if any member uses too much freedom of speech he shall be liable to have his mug put "in chancery" by another member who thinks he is big enough to undertake it. Not more than three members shall talk at the same time without the permission of the president. The proceedings shall be always "according to Gunter," "Hazle," the rules of the London Prize Club or any other

good rules, except those of the Rebel Congress.

#### ARTICLE X.—EXECUTIVE COMMITTEE.

The president, vice-president and secretary shall constitute an executive committee, and shall do all and singular whatever they may deem necessary to advance the interests and further the objects of the club, subject to the right of a majority of the members of the club to nullify their proceedings. This provision is intended to prevent the powers of the club from passing from "the many to the few," and to preserve to the members "the sacred right of revolution," "a right inestimable to them and formidable to tyrants only."

#### ARTICLE XI.—HONORARY MEMBERS.

Every farmer who will permit the members of the club to hunt on his farm like a gentleman shall, at the direction of the executive committee, be admitted as an honorary member of the club, and shall receive a certificate which shall entitle him to all the privileges of "the ornery" members without any liability for "steepends," it being the desire of this club to "do the fair thing by anybody who does the fair thing by us."

#### ARTICLE XII.—REVENUE.

On this last but "by no means least" important item, it is ordained that the necessary revenue shall be raised by an initiation fee to be charged to each new member, equal in amount to the total sum paid by each original member up to the time of the application for such new membership. If any applicant is unwilling to "come down with the dust" according to the true intent and meaning thereof, he can "stay out in the cold," as it is a matter of much more importance to him than to us whether he gets in at all or not. As the revenue from this source may not, however, be sufficient, and in order that the operations of the club may never be suspended for want of the necessary "spondulix," yet remembering the danger to be apprehended by an abuse of the taxing power, and feeling the importance of delegating this delicate and responsible duty to somebody who "knows what's what," it is ordained that the treasurer shall assess a tax, rateable upon the members whenever the exchequer is "troubled with the shorts," and this

power is confided to him because he will probably be the first member to find that out.

ARTICLE XIII.—AMENDMENTS.

Believing that it is only "with an unimpaired constitution that any *body* can long survive," and being desirous of preserving this constitu-

tion from "the attacks either of avowed enemies or pretended friends," and further believing that this constitution is the best that the wisdom of man ever did or ever can devise, we do declare that "it shall be like laws of the Medes and Persians, which alter not."



## EXIT THE CARP.

By OLD FIN.

The introduction of carp into the waters near San Francisco by the California Fish Commissioners has not been productive of good results. The newcomers are called water hogs and are considered a scourge in many ways. The demand for them in the market did not last long, and when the demand ceased the breeders quit the industry and turned the fish into the nearest water courses, where they flourished and thence spread until now they infest all the tide sloughs adjacent to San Francisco Bay. Winter floods carried them to the marshes and left them land-locked.

They have multiplied so largely that they may spoil the sport for the members of shooting clubs that have preserves of natural water and planted feed for ducks in their ponds. The carp have bred by thousands in the ponds and have almost destroyed the grasses. In the Suisun marsh myriads of fish have destroyed the feed. In the tule swamps up the bay and along the San Joaquin and Sacramento rivers vast shoals of carp may be seen. One club is considering the advisability of draining its ponds and keeping them dry for a season to kill the fish.—*Exchange*.

Ten years ago THE AMERICAN ANGLER contained the following paper on the carp question, which we reproduce to show how sadly even an angler's hopes may be blasted. Since then this fish has been pronounced "unfit to eat," and now he has become a scourge to fruitful salmon and trout waters. Like the English sparrow, the German carp has become an American pest. "Exit the carp." He is not good to eat, and certainly is not good to catch, as the writer of the paper referred to proved ten years ago:

The carp is, without doubt, destined to become one of the most esteemed and plentiful of our food fishes, and as such we have had its merits heralded for some years past; in fact we have, to phrase a paradox, been lately surfeited with this fish before we have even tasted it.

His gift of age and heft has been conceded, and his succulent and flaky meat has caused us more "mouth watering" than even our anticipation of the glorious reunions that come to us annually around "planked shad" boards, or "reedies on toast"; but with all these delicious outputs we have often asked ourselves the question:

"Is he as good to catch as he is good to eat?"

Let us look into this serious phase of the carp

question, first learning what the old anglers say about him:

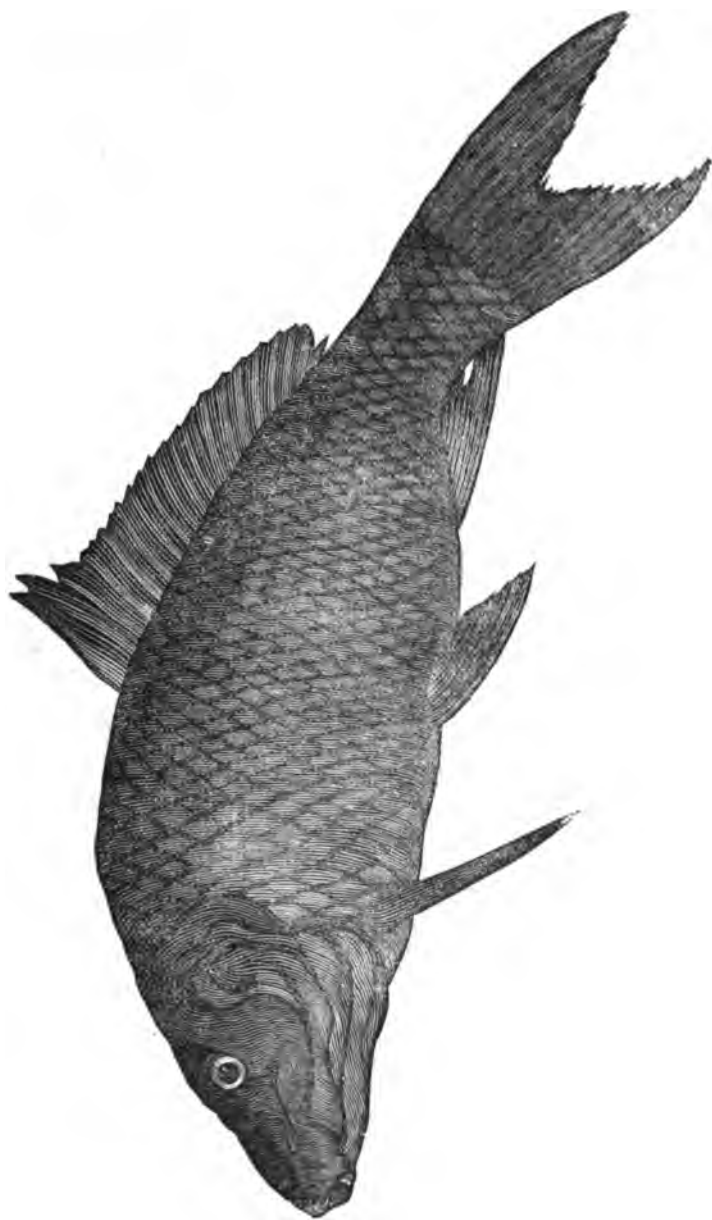
Dame Juliana Benners, in her "Boke of St. Albans," printed in 1496, in her queer, positive old English, lays down the carp law to us, with a woman's directness of language and force of temperament. We quote:

"He is an euyl fyssh to take. For he is so stronge enarmyd in the mouthe that there maye noo weke harnays holde hym. And as touchynge his baytes I have but lytyll knowledge of it. And me were loth to write more than I knowe & haue provyd. But well I wote that ye redde worme & ye menow ben good batys for him at all tymes, as I haue herde saye of persones credyble & also found wryten in bokes of credence."

We must admit that the Dame is very good as far as she goes, but she don't go far enough.

The Father and Teacher of us all, of whom to speak is to revere, etc., "Old Izaak," of course, talks as quaintly and knowingly of the carp and of catching and cooking him, as he does of all the rest of the fish that he angled for, cooked and ate. Read what he says:

"If you will fish for a carp, you must be put on a very large measure of patience—especially to fish for a river carp. I have known a very good fisher angle diligently four or six hours in a day, for three or four days together, for a river carp, and not have a bite. And you are to note that in some ponds it is as hard to catch a carp as in a river; that is to say, where they have store of feed, and the water is of a clayish color; but you are to remember I have told you there is no rule without an exception; and, therefore, being possessed with that hope and patience which I wish to all fishers, especially to the carp angler, I shall tell you with what bait to fish for him. But first, you must know that it must be early or late; and, let me tell you, that in hot weather, for he will seldom bite in cold, you cannot be too early or too late at it. And some have been so curious as to say the tenth of April is a fatal day for carp."



**TWO SCALE CARP**

"The carp bites either at worms or at paste, and of worms I think the bluish marsh or meadow worm is the best; but possibly another worm not too big may do as well, and so may a green gentle; and as for pastes, there are almost as many sorts as there are medicines for the toothache; but doubtless sweet pastes are best; I mean pastes made with honey or sugar; which, that you may the better beguile this crafty fish, should be thrown in the pond or place in which you fish for him some hours, or longer, before you undertake your trial of skill with the angle rod."

So much from the old gentlemen who leaves us ne'er a whit wiser as to the game qualities of this coming fish.

Sir John Hawkins, who edited a popular edition of Walton's "Compleat Angler," adds but little to our knowledge of the angling traits of this fish. He says:

"The haunts of the river carp are, in the winter months, the broadest and most quiet parts of the river; but in summer they lie in deep holes, nooks and reaches, near some scour, and under roots of trees, hollow banks, and, till they are near rotting, almost on or near great beds of weeds, flags, etc. Pond carp cannot, with propriety, be said to have any haunts; only it is to be noted, that they love a fat, rich soil, and never thrive in a cold, hungry water. They breed three or four times a year; but their first spawning time is the beginning of May. Baits for the carp are all sorts of earth and dung-hill worms, flag worms, grasshoppers (though not at top), ox brains, the pith of an ox's backbone, green peas, and red or black cherries with the stones taken out. Fish with strong tackle, very near the bottom, and with a fine grass or gut next the hook, and use a goose-quill float. Never attempt to angle for a carp in a boat, for they will not come near

it. It is said there are many carp in the Thames, westward of London, and that about February they retire to the creeks in the river, in some of which many above two feet long have been taken with an angle."

And we are still in the dark as to fight that is or is not in the carp, although a little daylight is let in by Ephemera, in his edition of Walton, issued in 1853. He says:

"The carp is the wariest of all fresh water fish, and none but the wariest angler can take him.

But alas! Ephemera spoils it all by not telling us more.

We have now reached Frank Forrester, and he states that "though the carp is shy and wary, the difficulty in taking him arises only from his timidity and unwillingness to bite, and he is as lazy when hooked as he is slow to bite."

Coming still closer to our own day, Genio C. Scott, in his "Fishing in American Waters," has literally nothing to say in an angling way about this coming fish.

Old practical Thad. Norris, ditto, ditto.

Hallock, in his Gazetteer, almost ignores the cyprinidæ family of fish, but as a compensation, the complete pages of Chambers' Encyclopedia gives us a modicum of comfort, to wit:

"To the angler the carp is not a very valuable fish, as he is by no means a free biter. *When hooked, however, he runs strongly, and fights with considerable determination and cunning.*"

The above italics are ours. Take it all in all, we fancy that carp fishing will not attract American anglers, as he is essentially a bottom feeder and biter, and it will require the temperament and patience of wharf fisher or a long-sitter to successfully basket these fish.



## THE COOKED TROUT.\*

By ED. MOTT.

"If thuz one thing I like better'n another," said the old settler, "it's the eatin' of a trout arter it's cooked."

"Arter it's cooked," remarked the squire, evidently astonished. "Wall, major, ye don't mean to 'siniwate ez y'd eat a trout *'fore* 'twere cooked, do ye?"

"I 'siniwate nothin', b'gosh!" replied the old settler, warmly, "I 'siniwate nothin'. I don't meanter say ez I'd eat a trout raw, but I do meanter say ez I've eat a many a one, an' so hev you, an' ev'rbdy else ez hez eat 'em at all hez eat a-many a one which was s'posed to be cooked, an' was so considered, but which wa'n't cooked, b'gosh, no more'n a juicy steak is cooked w'en it's fried, an' fried in store lard at that, an' fried til ye can't tell whuther it's a cut o' beef or a hunk o' liver. That's w'at I meanter say, squire, so it is."

"Wall, major," said the squire, "I dunno whose cookin' yer cuttin' at, but I *do* know that w'en it comes to cookin' a trout my Betsey kin—"

"Yes, b'gosh," interrupted the old settler, and his face grew red, "your Betsey, an' my M'riar, an' somebody else's Jerusha, thinks they kin cook a trout, an' mebbe they kin. It hain't their fault if they can't, 'cause they can't help the bes' part o' the trout bein' gone by the time it comes inter their han's. But the bes' part o' the trout *is* gone, all the same—an' even if it wa'n't, they can't cook a trout anyway, an' I'll give the reason fur why. They don't go at it right. In the fust place, w'en they git hold o' the fish, even if it hain't been out'n the creek a day or so, layin' with the innards out an' their place took up by a han'ful or so o' salt, our women folks goes to work an' souses the trout in water, washes it all off, rips it open an' cleans it, an' then souses the inside o' it 'til it looks like a piece o' box veal. Then,

b'gosh, w'at does they do but roll it in flour 'til ye can't tell whuther it was a trout or a durn or'nary sucker that ye fetched hum, an' then, no matter if it weighs two poun'—w'ich, o' course, ez a matter o' fact, th' hain't much danger o' it's doin' nowadays, if ye stick to the truth—no matter if it weighs two poun', slap! it goes inter a fryin' pan with pork, an' thar sizzles an' sizzles, an' snaps its juice all over the stove, an' gits hard on the outside an' stays half raw on the inside, an' smells more like a sassige w'en it's put afore ye ready fur chawin' than it does like the sweet-scented, quiverin', sparklin' thing ye draw'd out'n the eddyin' pool jist at the foot o' the swift bend in the brook, whar the alders nods an' the elms throws their dancin' shadders. An' thar's another reason w'y Betsey or M'riar or Jerusha can't cook a trout, 'cause half o' the cookin' o' a trout is in the ketchin' o' it.

"I'll tell ye, squire. Yer campin', fur instance, fur a day or two on yer fav'rite creek. Ye've got in thar late in the arternoon, 'cause on yer way out yer trapsed a good piece out'n yer way to see how the signs o' woodcock is, an' whuther the ol' hen pheasants hez had proper luck with their hatchin', an' to kinder skin yer eye over the forthcomin' prospec's o' deer, an' to mebbe take a peep 'long the swamp edges fur a ba'r or so a-wallerin'. Wall, ye git to yer campin' place late in the arternoon, an' by the time ye git things in shape yer too tired to let the trout know ye've come, an' so ye bunk in on yer bed o' new-cut hemlock boughs, an' 'fore ye've heered the whipperwill call twicet, settin' out jist beyent yer cabin ez he is, an' makin' the stillness seem deeper with his noise, ye sling yer arm up over yer head, an' whoop! b'gosh yer asleep! W'en ye wake up in the mornin' the sun is jist a-thinkin' o' gittin' up, an' it'll be half an hour yit 'fore ye kin say good mornin' to him. The trees is full o' birds a-singin'; thuz a sassy red squirrel chatterin' in the big ches'nut tree down in the holler; the breeze comes down from the mountain back o' ye an' fills ye full o' new life; the leaves trembles and shakes, an' drops little showers o'

\* An unknown but considerate brother angler sends us a printed copy of this quaint dialect yarn, but failed to tell us whence it came, hence we cannot give proper credit, except to the author, who has made this branch of angling literature entirely his own.—Ed.

silver that'll glitter, by an' by, when the sun sees 'em; ye can't see the brook, but ye kin hear it shoutin' from beyent the stretch o' hemlocks; ye look aroun' an' swell yer lungs, an' say:

" 'B'gosh, this is nice, an' I hain't a bit tired no more."

"Then ye dig yer fire place a foot deep an' ez wide ez ye want it. Ye dig it right in the moss spot, at the foot o' the old rock, jist a step from the cabin. Then ye build a fire o' hard wood an' keep her goin', 'til by the time ye've got yer flies tied on an' ev'rythin' in shape fur goin' over an' tacklin' the brook, ye've got a foot deep o' the cleanest, red-hottest ashes ez ever glowed an' waited fur to be used.

"Ye find the creek jist right, an' w'ile yer lookin' it over, a green-winged fly drops on the water, an' it can't struggle hard enough to keep the ripples from bearin' it along, till it circles roun' the edge o' the big rock that sets in the brook jist b'low ye, lookin' proud o' the moss that kivers it, an' seemin' to say, 'Don't ye wish ye war mie, settin' here in the shadders, an' the creek a-kissin' of ye, an' allus singin' to ye, day in an' day out, an' never gittin' tired o' it? Don't ye wish ye war me?'

"The green-winged fly circles roun' the edge o' the proud ol' rock. Ye see a flash in the water, an' thuz a foamy place in the pool fur a secon' or so. The green-winged fly is gone.

" 'A-ha!' ye say. 'If ye'll take mine that way, ol' feller, yer my meat.' An' ye drop yer flies way below the rock an' dance 'em up along it. Whiz! He took the leader, an' it's in his jaw. Give him line! Keep him away from that ol' root thar, on t'other side the creek! Whew! See him come out o' that water! He's a good un', b'gosh! Thar he goes fur tide, like a steam injine! Foller him quick, if he leads yer a mile! Hol' on! Hol' on! He's comin' back agin'! Reel in yer line, an' don't hol' yer rod so low. Straighten her up! Straighten her up! Thar! Now let him worry hisself a spell in that deep hole. Keep him head up. He's a game 'un, but he's a goner. Now he'll foller yer line ez ye reel him in. Gentle with him, fur he'll give another kick w'en he sees ye. Thar he comes. Now yer net! A—ha! He's yourn'! Lay him in the dewy grass. Don't

put yer han's on him. Sniff the savor of 'im. Nothin' like that grows on plant or tree, nor kin they make it with the balm o' flowers.

"Wall, squire, havin' ketched yer trout ye look at him a minute ez he lays thar in the grass. The sun hez got up, meantime, an' is peepin' down at him through the openin's in the leaves, makin' his gold an' crimson to glisten an' sparkle agin. Then ye run yer finger under his gill an' carry him to the cabin. Ye lay him lightly on the moss, keepin' yer han's off'n him. Right by the cabin thuz sweet fern a-growin', an' ye kin smell it. Mebbe thuz a clump or so o' spice wood. If th' is, all the better. Ye pick some fern or spice wood, or both, an' lay it by the trout. Then arterward ye take a piece o' clean brown paper an' ye kiver it with the fresh butter that our Betsey recently made, an' which is in the little stone jar that ye sunk in the spring at the edge o' the alder thicket last night. Ye kiver the paper thick with the butter, an' ye sprinkle pepper an' salt on it. Then ye wrap the trout in it, jist ez it come from the lake a quarter hour ago. Then ye wrap a little o' the sweet fern or spice wood leaves about the paper, wrap another brown paper over the hull, an' bury yer trout clean to the bottom o' the red-hot ashes. Then ye go to the creek an' take a soothin' ol' wash, arter which ye take that little flat bottle o' your'n an' walk over to the spring an' tamper with it gently. By the time ye come back an' cut yer bread an' set yer table, ye kin think o' onkiverin' yer breakfast. W'en that trout comes out from the ashes, an' ye take his wrap-pin' off, he looks so much like he did the minute he come out'n the water, that ye can't hardly think he's dead an' cooked. An' that's his nat'ral smell, sweet an' penetratin', w'ich the ferns kep' from wastin' away. Ye take yer sharp knife an' cut him open in the belly. Thar's his innards all shriveled up in a leetle wad, an' they come all out together, an' yer trout's ez clean inside ez kin be, an' none o' his nat'ralness is missin'. Ye take him up, lay him on birch bark, if ye kin get it, if not, on yer platter, with fern all aroun' him, an' then w'en ye eat him yer eatin' a trout that's cooked, b'gosh, t'lmighty, an' it's me that says it!"

## NOTES AND QUERIES.

[Under this Department Hearing queries relative to Angling, Ichthyology and Fish Culture will be answered.]

Now and then we are reminded that the quality of sentiment in angling is still abroad, particularly among those who are classed "old-timers" by the modern members of the craft. "It is not all of fishing to fish," a maxim that has become almost trite through abundant quotation, is still the text of these old anglers, as illustrated by their methods and by the sustaining charm that life in the woods and on the waters has for them. They write us occasionally, one particularly, "Waumadee," and here is what he pens:

"I still love to pull my boat to the head of the lake, tramp through the forest along the margin of a rushing mountain torrent till the upper course is reached, for there are long, dark pools of quiet water, bordered by grassy meadows and clumps of alders.

"I stand among the tall grass and ferns with a whip in hand, like some driver who has lost his team. Now the swish of my lash seems to bring new life, new action on the scene. The feathery gang sails through the air and gently settles down just where a clump of alders throws the deepest shade. But why tell the story? You have been there and know it all.

"My basket is full, and over my treasure I spread sweet birch leaves and damp moss, that those at the camp may feast on the beautiful vision as well as I. And now my fair-haired girl lays them side by side and exclaims: 'What beauties! Where *did* you get them?'"

Years ago, at least twelve, Nesmuck, that genuine angler and experienced backwoodsman, but, withal, the spirit of a poet, wrote us on the eve of his departure for the North Woods:

"Yes, God willing, I will leave when the

maples do, and drop out when the last leaves drop off.

"You are well right; the older we grow the more we fish—the less we shoot. And we come in time to hate the trout hog and the two-legged deer-wolf, and only kill so many of the bright-eyed wood folk and quick-glancing water kelpies as we may need to our use, fairly taken and rightly used. I shall go to the woods once more, I trust, when the leaves are out and the hermit thrush has come back to his old topmost spray on the tallest hemlock; when bark will peel, and browse for my bed is young, fresh, fragrant and tender."

On one of the latter days of November we made our last cast of the season. The wind blew cheerily from the northwest, with just enough snow in its breath to frost the finger-ends and cause alternate housing of them in either pocket. The surface of the river was dimpled all over by hurrying gusts, and the transient dark spots on its bosom made by the scurrying clouds created choice and likely spots for the fluttering fly to fall. Recent rains had swollen the body of the stream to just the right height, forming little bays on either side of jutting sand-bars, where, along the edges of the grass in the midsummer days, the old bass would lie, waiting for the "little sunny" to venture out from the shelter of the water-weeds, or for the baby chub to swing into the swirl of the rift in his eagerness for the bug food he so delights upon.

Anglers! did you ever note the sad changes that come over your favorite stream when it alternates from high to low water or *vice versa*? We dare assert that there is not one

of you without your pool of plenty, your choice rock, your bonanza rifle, and that you have never thought of that one glorious trip at a certain "evening tide," when the fish came almost at the call; but what that pool, that rock or rift, was ever uppermost in your mind's eye or your heart's yearning. Yet, alas! perhaps on your very next visit to the same waters, you looked in vain for those favorite spots; a rise of a foot in the river, and, presto! they are gone. Such was our fate on this last trip of the season. The old likely places had all been flooded, but in their stead were the *dashiest* of rapids (all new to us) that it was ever our fortune to chuck a bug upon; and we diligently worked them, but with no reward. The black bass have all gone into deep water. *Au revoir*, fly fishing.

Much complaint is made by anglers of streams where German trout have been planted. They assert that this species gorge themselves with our brook beauties, which they are able to do from their size, many of them reaching five pounds in five or six years from their deposition as fry. In this connection Mr. Thos. W. Frame, the taxidermist, of Rochester, N. Y., writes us that, upon dissecting an eight-pound German trout, he found a five-inch trout in its stomach. The *Post-Express*, of Rochester, comments on this subject:

Fishing in Spring Creek has not been as good this season as it should have been, taking into consideration the amount of money expended by the Caledonia Fishing Club to stock the water. Various causes were assigned for the scarcity of trout, and different plans for improving the angling were proposed. The members now think they have discovered the cause of the trouble, and heroic measures of relief have been adopted. They were satisfied that too many large trout were in the creek living on the small ones and rarely taking a fly. Several monster German trout have been seen at certain pools on the stream, and one or two anglers have had the experience of playing the big fellows for half an hour or more and then losing them. It was determined to play no longer with the giants, but to remove them from the creek with nets. The work of removal has been going on for some time and has been very successful. One of the German trout, which weighed eight pounds, was taken a day or two since, and several approaching five pounds in weight have since been removed. These big fish would eat so many of the small ones as almost to clean out

the stream. A marked improvement in the angling is confidently expected to follow the weeding-out process. Of course none but the overgrown fish were removed.

#### Moonlight and Trout.

I wish to ask for information upon a question which attracted my attention the past summer. In July I visited the seaside resort on the "Necanicum" Creek, in Clatsop County, Western Oregon, in the expectation of anticipating the crowd of men and boys who annually whip that stream for brook and salmon trout. As the place referred to is only about two miles from the *debouché* of that stream into the Pacific Ocean, there is in July and part of August an annual run of salmon trout from salt to fresh water. Now, my query is: Do trout feed at night during the time of "full moon" and rest during the day time, resisting the efforts of the fly-fisher to lure them by day?

This query is presented because of unusually poor success during the days of daily whipping the water where the previous year I took numbers of fine fish, both of brook and salmon trout. Some of my friends suggested that trout feed by bright moonlight when the moon is in the "full," and I am very willing to place my poor luck to that luminary's bright beams; but what is the judgment of our angling friends east and elsewhere? It is the fact that during most of the days' fishing above referred to the moon was at the *full*, and was especially bright all night in the clear summer sky of the Pacific shore. J. H. Eaton.

PORTLAND, ORE., December 7.

[We have taken trout at night when the moon was at its "full," and we have been equally successful on dark and lowery nights. It is contended by some experienced English anglers that trout rise more freely to the fly when the moon is brightest. This subject has never been discussed, to our knowledge, by American anglers, and we now throw our columns open to them. "Let us commune together."—ED.]

#### Black Bass Record Broken.

A black bass (large-mouthed) was recently caught near Waldo, Fla., which weighed twenty-seven pounds. This tops the record by three and a quarter pounds, as a bass weighing twenty-three and three-quarter pounds was taken some years ago from a Florida lake. We are promised a full account of the capture, dimensions, etc., of this big fellow for our February issue.

An albino catfish, nine inches long and weighing over a pound, has been on exhibition at Lancaster, Pa.

### The Great Turtle of Australia.

An Australian lady sends to *Land and Water*, from Queensland, a description of a monster turtle and an outline drawing of it, both of which we append:

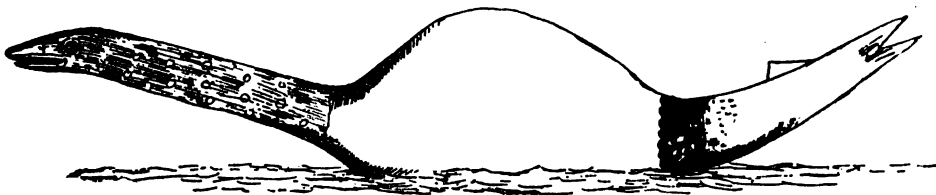
"We have had a visit from a monster turtle fish. I send a sketch of it. It let me stand for half an hour within five feet of it. When tired of my looking at it, it put its long neck and head into the water and swept around seaward, raising its huge dome-shaped body about five feet out of the water, and put its twelve feet of fish-like tail over the dry shore, elevating it at an angle. Then, giving its tail a half twist, it shot off like a flash of lightning, and I saw its tail in the air about a

twelve feet, the fish part wedge-shaped and fin of chocolate brown; then beautiful sides shading to white: scales size of thumb nail."

To which the editor responds:

"In the opinion of the authorities this turtle is the *Carettochelys*, a monster turtle known to exist at the mouth of the Fly River, New Guinea, which has a very long neck. The museum at Sydney possesses the only known preserved specimen, and that is a dry one. The length and shape of the tail, as described, are, however, impossible, as no turtles have caudal appendages corresponding to the description, and the fair observer must have been mistaken on this very important point. Neither have turtles teeth, though the other points would

Jaw, 18 in.    Neck and head, 6 ft. out of water.    Domed-shaped body, 8 ft. across, slate gray, smooth, about 5 ft. high.    This part of tail about 2 ft. plated.



Color, greenish white; large, round, white spots; thick cord of chalk white round very black eye and round both jaws.

Tail, about 12 ft.; fish point of tail wedge-shape and fin of a chocolate brown; then beautiful sides shading to white; scales size of thumb nails.

quarter of a mile off, where the steamers anchor. It has either teeth or serrated jaw-bones. Native blacks call it 'Moka, moka,' and say they like to eat it, and that it has legs and fingers. I did not see its legs, as they were in the water. What I saw of it was about twenty-seven or twenty-eight feet, but I think it must be thirty feet in all. Whilst its head was out of the water it kept its mouth open, and, as I could not see any nostrils, I fancy it breathes through its mouth. The jaws are about eighteen inches in length; the head and neck greenish white, with large white spots on the neck, and a band of white round a very black eye and round upper and lower jaw. The body was dome shaped, about eight feet across and five feet high, smooth and slate gray in color. Tail about

correspond to the *Carettochelys*. We may add that the authorities at South Kensington are most anxious to obtain a specimen of the *Carettochelys*, and have offered a very handsome sum for a specimen, or even a part of one, which may lead to its further identification. The question is undoubtedly of interest to lovers of natural history."

### Delectable Fishing Waters.

They are some four or five miles in length and a mile or so wide, studded with numerous islands, and located in the tidal waters of the Restigouche. The angler, if he wished, could stretch his little tent, or he could find a boarding house, if not too fastidious, near. Some who frequent the locality board in Campbellton, distant six miles, and either

drive or go up and down by rail. To do good fishing the angler needs a canoe to get round the coves and pot holes, where the newly arrived trout are playing hide and seek in the clear water. He therefore should have his tent, and of course a guide, but if there are two in the party "able to paddle their own canoe," and do their own cooking and providing, a guide can be dispensed with. Trout can be had from June 1 to October 1, the first three weeks in June and first three in September being the best times. During June there is a possibility of hooking a salmon as well, as they are running up river, and during the last few years a good deal of trout tackle has been lost on something heavier than trout, although the latter have been caught in June as high as six pounds. I am of the opinion that salmon might be caught by trolling in the estuary at Campbellton, but so far it has not been tried.

J. M.

#### Can Snakes Charm Fish?

"He who, in the love of nature," can spend a week, yes, even a day, in the woods or on the stream without learning something, must be of those who, having eyes, see not, and ears, hear not; or are like little Mary Harris, "much to be p-i-t-i-e-d." Now if "he" will not impart that something, be it ever so little, he has no right to read a book and appropriate another's knowledge; but, for fear that my portico will be larger than my house, I will stop moralizing and give you one little mite of observation, for I intended to relate what I saw of young shad in the Delaware.

We were camping, two of us, at Wells Falls, on the Delaware, below New Hope, and with our flies had not succeeded in fully supplying our frying-pan and gridiron. Neither rockfish, black bass nor sunfish seemed to properly appreciate the merits of a feather diet.

Fish were there, plenty of them—that we knew; and we had found that it was try

something else, walk a mile and a half, or go hungry. The last named was not to be tolerated, nor the second either until we had tried the first, albeit, so far as walking was concerned, we would not have considered carrying our traps twice that far provided good fishing was to be at the end thereof.

To be sure we had only fly-rods with us, but doubted that either the bait we intended to and did use, or the fish we intended to and did catch, would care a picayune whether we fly-fished with a bait-rod or bait-fished with a fly-rod—except, perhaps, the impaled minnow.

To use bait, first catch your bait. You know how that is, no doubt. Below the falls, on the Pennsylvania shore, there is a series of gravelly flats, which, at every freshet, are completely submerged, the falling waters leaving the higher parts dry, and in the low places little ponds. In these ponds small fish were fairly swarming, and the bait-catcher, with a yard and a half of mosquito netting rigged on a pair of light brails, can catch in five minutes more bait than he can successfully use in that many hours. If you are mathematically inclined, you may infer that in that locality the chances of catching bait to catching fish were about sixty to one, and that was just about the size of it.

We ran our little net through a pool and caught some dozens of small fish, and stopped instant. 'Cause why, the small fish were small shad from three to four inches long, and we would be ashamed to try again at so great a cost. These poor little thin-skinned, silvery-sided *Alosa* that lost their lives in that one haul, if successful in their journey to the sea and back (which is doubtful) would, in two years' time, have comfortably fed a score of hungry men for half a day.

We secured our bait elsewhere, young sunfish, catfish, chubs, minnows and crayfish, and returned to see what we would see.

Approaching a pool as large as a big dining-room—that's definite enough—we found "millions in it," and the fright that our mov-

ing bodies gave them sent them skurrying in every direction with such energy that the mere contact of one with another killed them by dozens. Then we laid ourselves quietly down upon the ground by the pool, one on each side, and remained motionless for a few minutes, and were rewarded by a sight entirely new to us.

The water was perfectly clear and not above two feet deep, the day calm and bright, and the proceedings below the surface easily observed. In the deepest part of the pool a solid phalanx of little fish (if I may so call it) was swimming around and around in a ring of about two feet in diameter, the band being about six inches wide and apparently two or three layers deep.

Around and around they went, at the least motion on our parts breaking ranks, to resume their circus at once when we were quiet again. We were interested, of course, and puzzled, and we tried for half an hour or more to learn the cause of such unusual movements.

Our talk, for we did talk, did not disturb them, from which we inferred that they could not hear us: our slightest movement did, from which we inferred they could see us.

Carefully crawling a little nearer, we discovered the centre of the moving circle was a large water snake, coiled, quiet and watchful. Ornithologists have told us, in unreliable school books, that snakes can and often do charm birds, and some have, in their more elaborate works, tried to substantiate that theory. I never believed it, and I certainly never heard of snakes charming fish; but what were these shad doing? Were they charmed?

If they were afraid of his snakeship, why didn't they run away, as they did when we stirred? Why, when our disturbance ceased, did they persistently return and take up their ceaseless round in so dangerous a neighborhood? These are conundrums that I can't answer. Can you? J. W. D.

### Oregon vs. Rangeley.

Fishing excursion June 29, 1885; place, Williamson River, Klamath County, Ore.; number of fishermen, three; Bishop B. W. Morris, eight, 14 lbs.; Capt. Fowler, U. S. A., three, 10½ lbs.; Rev. W. E. Potwine, eighties, 35 lbs.; wal hts, 6½, 6½, 5½, 4½, 3½, 3½, 2½, several 2 and nearly all the remainder over 1 lb.; rods used, fly-rods, eight ounces.

[Signed.] B. Wistar Morris.

PORTLAND, ORE., December 7.

Although the above note of an angling excursion dates back to over six years, it may nevertheless interest the "fraternity" to know how Oregon can compete with the famous Rangeley Lake and River fishing in Maine. It may also show that the dignitaries of the church of the present day can throw a fly with adroitness and success, as they did in the days of Izaak Walton, and equally indulge in the "contemplative man's recreation."

I may add to this note that two of the same party visited the same fishing ground, Williamson River, last August, with poor success, taking only three trout. This was due to the fact that the valley of the river and the surface of the water were covered with grasshoppers. They describe the noise of the flight of countless swarms of that insect as of startling effect. Such swarms were reported in the papers of the day as devastating the fields and crops of Northern California. The three trout were nevertheless taken with the fly, but found gorged with grasshoppers.

J. H. E.

### A Fifty-two Pound Mascalonge Caught by a Lady.

I noticed in your last month's ANGLER a notice of a fifty-two-pound mascalonge being caught at Boot Lake. I am very happy to say that I had the honor of landing the said fish. Please find enclosed a picture of my guide, myself and the fish. My guide is Louis Denton, whose father used to be proprietor of the Denton House, and who is one of the best-known guides in that section of the country.

We have not been out fishing very much this summer, but while we were had very

good luck. On one outing Mr. Bredel and his party caught during a three days' trip over five hundred. When trout fishing he tried new waters, especially the headwaters of the Brule, where a party of three caught in two days 475 trout. The largest weighed one and a half and two and a half pounds, while the others were of average weight. The party consisted of Mr. T. B. Walsh, of Eagle River;

it came to Milwaukee, weighed forty-four pounds, as it was then cleaned and four days old when it arrived here. It was a beautiful specimen of its kind, and is now being mounted by Mr. Akeley, the taxidermist of the Public Museum here. I hope I shall have the pleasure of showing it to you should you ever come to Milwaukee.

Now let me say one thing for that part of



Mr. Alonzo Shanks, also of Eagle River, and Mr. Bredel. The place is situated about twenty-eight miles from Eagle River.

The next point was Buttermilk Lake for bass fishing, and the party consisted of Mr. D. R. Russell, of St. Louis; Mr. W. Walsh, of Eagle River, and myself. The guides were Louis Denton and Tom Neill. After our return from there we went with our guides to Boot Lake and caught eight mascalonge beside the fifty-two-pounder. The fish, when

the country, that is, to sportsmen who wish to enjoy a few days' recreation; one could not do better than to visit some of those lakes in that section of the country, simply because they are only a short distance from the hotels, so their fish can be easily sent in and shipped away. There are also lovely camping grounds and beautiful lakes, and I am sure that our angling friends would not be disappointed by visiting some of those lakes, and as for fishing, I think they would be well repaid. Regarding



hotel accommodations, the Denton House is the best, as Mr. and Mrs. S. Smith try to make everything pleasant and home-like for all tourists, having first-class guides and boats. Trusting that we will have the pleasure of meeting you and some of our angling friends, I remain, yours truly, *Mrs. Fred. Bredel.*

MILWAUKEE, WIS., December 18.

#### A Large Yellowstone Trout.

Don't think for an instant that I am dead because I have not written within a few days. But the wind has been blowing rather too much for getting my bait, just when I wanted, on the stream, and I have been keeping company with the cook stove.

Saturday I went down to Livingston for a short visit, and while there on Sunday a gentleman came into the sample room of Gray & Metzalein's (where, somehow or other, I happened to be), bringing in a trout he had caught in the Yellowstone within less than three miles of town. The fish weighed 8 lbs. and 5 oz.; it was 25½ in. long, 7 in. deep, 16½ in. round and 3½ in. thick.

More than twenty-five men can vouch for the above. Mr. Wm. Wittich, taxidermist at Livingston, has the trout now in charge to mount and when finished it will be placed on exhibition in Livingston, and in 1893 will be seen in Chicago. Mr. E. W. Joy caught the trout with minnow bait, and when he hooked him he saw he had a whale and jumped in and threw him out with his hands.

Yankee Jim, a character in these parts, living about twenty miles above me, has a trout alive in a spring at his place that he says weighs very nearly eight pounds, and I know of one that I have seen in a small lake within one mile of my place that I honestly think will weigh over ten pounds. I have looked at him within thirty feet and judge he would measure thirty-two inches in length and, I have no doubt, will go more than the ten pounds. There are such hiding places in the lake that in order to get him the lake would have to be drained, which would cost probably one hun-

dred dollars. I am so sure of his being as large as I state that, if any party would agree to pay double the cost of drainage should the trout weigh over ten pounds, I would give my time if he fell short. I don't mean to be understood that trout of such size are plenty, but still we get trout of four pounds and over very often.

When I get warmed up a little I shall throw the hook a few times more in 1891.

FREDLEY, MONT.

*B. P. Van Horne.*

#### Why Ladies Should Angle.

"Ought a woman to fish, and can she become a successful angler?" is the dual question frequently propounded to me for solution. Certainly. Why not? Let me hasten to analyze the subject and express an opinion in defense of lady anglers. Why should she be debarred, by reason of her sex, from being initiated into the mysteries of the rod and reel? Why should her sphere of amusement and pleasure not extend beyond the circumscribed limits of her domestic duties? And the more especially when she can with absolute propriety forsake the conventional monotony of the drawing room or parlor for an out-door recreation which inspires sentiments of the most ennobling character, and gives her the broadest latitude in which to indulge her romantic fancies and gratify a latent ambition, engendered by her refined tastes and made subordinate to her tender sensibilities, to contemplate and commune with the beautiful in nature.

Such reputable games as archery, lawn tennis and croquet serve to beguile many an otherwise weary hour; with the completion of the game the pleasure practically ends, and sometimes, too, petty jealousies, silly disputes and sour tempers conspire to disturb the harmony and pleasure of a company of players. Not so with angling. It aids and fosters contentment and tranquility of mind; the exquisite pleasure its associations and surroundings inspire linger long in memory, and awakens

one to a new life, and cultivates a taste for nature. Woman is by instinct an enthusiastic lover of nature and an ardent student of natural history, and as angling is inseparably associated with both, it is an accomplishment at once suggestive of intelligence and refinement, and practically of more real benefit to her both as regards physical exercise, health, and a general knowledge of that delightful branch of natural history—ichthyology—than all the rest of the out-door sports in which she is permitted to participate.

Pure air and moderate exercise never killed any one; but how many women have undermined their health by languishing in the vitiated atmosphere of a close room conning the pages of a senseless novel? Let her fish? Yes, let her lay aside her novel and go out into the sunlight—it will drive away *ennui*. Let her roam the green woods, let her muse among the flowers; or, rod in hand, let her follow the meanderings of some stream, and, while she is hooking the finny denizens, study their habits and learn their haunts. "But how can I learn to fish?" some lady reader will ask. That depends a great deal upon the energy and interest of the lady herself in the matter.

To be a successful angler requires patience, skill and practice. While bottom or float fishing have their advantages, fly-casting is the sport *par excellence*. Several ladies of my acquaintance are *au fait* in fly casting, and can basket as many scales in a day as some of the most expert masculine disciples of the lamented Izaak. They first learned the technical terms and method of rigging the tackle, and then applied themselves persistently to the task of casting until they could do it with an easy and graceful movement of the rod, the fly falling on the surface as softly and noiselessly as a "thing inanimate." Did they basket any fish? I should think so. Oh, yes; those ladies have pluck and courage. They don't drop the rod and, with a scream of false fear, fly incontinently from the river

bank, when a fish rises to the fly. They play it skillfully and gracefully, and invariably succeed in getting him into the landing net. No lady can reasonably expect success who manifests an aversion to "the nasty thing," or who makes the hills and woods re-echo with her screams if a harmless little fish happens to get on her hook. Seriously, however, it will reflect no discredit upon a woman to learn the art of baiting a hook or casting a fly.

Angling combines all the essential elements that promote good health—indeed, it is the panacea for many ills—and many ladies will find rest and relief from onerous household cares by the banks of some favorite stream. Away with false notions about female sport and recreation! Let women learn to fish by all means!

P. F. J.

On this subject, so pleasantly handled by "P. F. J.," Ned Buntline wrote us a letter in October, 1881, which we give as a reminiscence of that pleasant fellow and earnest angler:

"It must not be arrogated by man that he is the sole lord of the Piscatorial Domain. I have a better half who can handle her six-ounce fly-rod quite skillfully, who has camped with me on the banks of more than one bright trout stream, and gently, deftly drawn her share of the speckled beauties from their native element to the shore.

"I remember well some ten years ago a Mrs. Pollard, of Jersey City, who, in a neat bathing suit, took the lead over some of our best fly-fishermen wading in the Beaverville, and who always took at least two to his one when her husband tried to beat her in the catch. She was graceful, skillful, and, unlike too many of the sterner sex, not a bit given to boasting.

"Female anglers are gaining ground every year, as any one who reads can see for himself. In the salmon waters of Canada, England's fairest princess made a ndgra name

this year for her skill and success. And at this moment I hold a letter written to my wife by one of the fairest married belles of Washington, Mrs. Mattie W., telling of the joy she had experienced with her husband, father and a select party of ladies and gentlemen from the Old Dominion, while on a fishing tour on the lovely Shenandoah.

"I caught," said she, "and saved, after a tussle of an hour—more or less—a four-pound bass. Oh! how he pulled—worse than a male speeding home at feeding time. But I held on even after he had run out all the line—one hundred and fifty feet—on my reel, and before I was quite tired out he gave in, and I pulled him ashore *and sat right down on him*, I was so afraid he'd take a fresh start and get away again."

"Just fancy that queenly form, which I have watched in many a glorious waltz, seated on a four-pound bass for a throne, while she shouted in glee:

"'Harry! Harry! run here—run fast, for I've got the King of the Waters in the tightest pen he ever knew. Come and help me save him.'"

"And well might our fair friend rejoice over such a capture. A few months ago she and her happy mate made their bridal trip to Eagle's Nest, and I am glad to know that to many other accomplishments she has added that of angling. Healthful, noble and gentle, it will hurt no one to seek color, life and joy in the wilderness and by the side of bright waters. It is 'big medicine,' as an old Pawnee chief said to me when I pulled a fifty-pound catfish ashore for him near Grand Island once on a raw silk fly-line with a trout reel and ten-ounce rod. I used a bit of sage hen for bait that time. I thought it was 'big medicine' myself when he shoved about half of it into an iron pot with some venison, bear fat and hard-tack that he had got from the post near by. But I was hungry and went into the mess cheerfully when it was brought into the tepee.

#### A Salmon and Grilse Score and Analysis of the Fishing.

When the analysis given below was made it was intended that a similar one should be made of the fishing done each year thereafter, but the year following the year in which the analysis was made differed essentially from the fishing of the year in which it was made—a different river was fished, the water was unusually warm and the fish were slow to take the fly, the same fish coming to the fly in some cases ten or twelve times. Under these conditions, to have conveniently kept an accurate count of the rises, fish raised, fish raised a second time, fish raised a third time, and so on, would have required the services of an accountant. This, the only such analysis made, is sent to THE ANGLER at the request of Mr. Harris, to suggest a form which, if made for a number of years on the same river—considered in connection with notes on the weather, the temperature and the state of the water—might prove to be of value, or at least of interest, to fishermen on the river:

##### SALMON AND GRILSE SCORE.

	SALMON.	GRILSE.
July 4.....	1 9½ lbs.	
" 7.....	1 9½ "	2
" 8.....	1 11½ "	
" 9.....	2 10½ "	2
	9 "	
" 11.....	1 12 "	5
" 12.....		2
" 14.....		5
	6 62½ lbs.	16

##### ANALYSIS OF THE FISHING.

	SALMON.	GRILSE.	TOTAL.
Rises.....	17	24	41
Rises after first rise.....	4	1	5
Fish raised.....	13	23	36
Raised not hooked.....	5	4	9
Hooked and lost.....	2	3	5
Killed.....	6	16	22
Raised once only.....	10	22	32
Raised a second time.....	3	1	4
Raised a third time.....	1	0	1
Hooked on first rise.....	6	19	25
Hooked on second rise.....	1	0	1
Hooked on third rise.....	1	0	1
Raised once not hooked, not raised second time.....	4	3	7
Raised twice not hooked, not raised third time.....	1	1	2

BOSTON, MASS., December, 1891.

W. B.

## Fish Formation and Fungus.

I was very glad to see the answer you gave me concerning trout ova in November number of *ANGLER*, and I believe it will be the means of my having better success this winter as I have increased the flow of water, and my eggs are looking better than ever before. You so encouraged me that I take the liberty of asking other questions: 1. How long does it take for the ova to show eyes in 45 degrees water? 2. Some of my fish, after I have handled them, show white fungus-looking spots which seem to spread, and some have died in handling them; I am as careful as I can be with them; but they seem to be the only ones that are affected, and principally male fish. If it can be prevented, how so? If not, is there any cure for it?

A. H.

GUNNISON CITY, COL.

In water of the temperature of about 45° it takes twenty-five to thirty days for the ova to show formation. Your fungus growth is caused by rough handling and sometimes by the fish fighting each other, of which the males do a great deal during spawning season. When the fungus first starts, you can sometimes cure it by putting the fish in a strong brine (killing the parasites) and leaving them in it until they begin to turn up on their sides, at which time put them at once in fresh water. Nothing, however, will cure them after the fungus has commenced to spread. When this is the case take them out immediately from the healthy fish.

## Practical Notes from Abroad.

From far Roumania, through the London *Fishing Gazette*, we have an interesting note, accompanied by the usual English sneer, on the catching of sturgeon with hook and line:

"I have always read and heard that it was impossible to catch a sturgeon with a hook on account of their mouths, but it seems it is not so. Here they dig up mud from the Danube with a long scoop and get out the May-fly grubs and use them on hooks sunk to the bottom, and the sturgeon suck them in. Another way is to put a cork in the water with a hook sticking out, and the sterlets (young sturgeon), or 'Shega,' as they call them here, flip at the corks with their tails and get hooked. This sounds rather like a Yankee tale, but I see it going on almost every day."

We cull from the same journal several practical angling devices and notes:

"I wish to make known, for the information of brother anglers, a neat and ready substitute for the twine or soft wire ligatures used to tie together the joints of a fishing rod when in use. Instead of using either of the above-named articles to loop round the bits of wire at the ends of the ferrules, I have been employing for some time back the ordinary india-rubber rings sold in small boxes for a few pence—and usually used for binding bundles of letters or papers. These elastic bands will stretch to a great extent, and when one is looped over the joint of the rod, like a St. Andrews Cross, it keeps it very firm and does not interfere with, but rather improves, the elasticity of the rod. With fair usage, too, the elastic band will last for some time."

On the somewhat reprehensible ("catch 'em or no catch 'em") habit that prevails in English waters of luring salmon in rivers with natural bait, particularly prawns, the *pros* and *cons* of the question have occupied many pages of the English fishing journals. The "pros" are well represented by "Dod," a correspondent of the *Gazette*. We quote:

"The ranks of the old school of anglers, whose motto is 'salmon with a fly or no salmon,' are thinning fast. Season after season witnesses new defections to the side of the latter-day angler who is always on the lookout for and ready to take advantage of those occasional substitutes which often prove so valuable in bringing a fish to gaff when the wind, weather or water are dead against sport with the fly. Among others the prawn comes to the front as a most successful supplementary lure under certain conditions. Mark! the prawn is not to be used as a substitute for the fly. Like the natural minnow and phantom, to which it may be said to rank next in order of merit as a lure, it has its time and place, and may only be called into requisition, as a general rule, when a decided change is needed. The fly is the lure of lures,

and, if the utmost is to be made of a stretch of water, it should be more *en evidence* than all other substitutes combined. The natural minnow, gudgeon, phantom and kindred lures yield best results in spring and autumn, when the water is about its average temperature, or rather rising to the average. The conditions under which the prawn works best are more frequently met with in July and August; yet it may be introduced at any season, and often fetches the wished-for prize when all else has failed. A fresh-run salmon—newly from the sea—will take almost anything; but when he has been on the river some time, when the water has gone down, and the fish has become ‘*potted*,’ as the saying is in the North, and the efforts of the angler to fetch the stale fish with the fly have proved futile, then the prawn is called into the ‘council chamber,’ and inevitably furnishes the exasperated sportsman with his revenge.

“Should the water rise slightly, so as to shift the fish, so much the better, for there is nothing “works the oracle” like the prawn with red or potted fish after a slight freshet. It is to be preferred to the worm, unless the water be slightly colored; under such conditions, and should the prawn fail, the angler may give over the effort to get sport as a hopeless task for the time being. Opinions differ greatly in this, as in all other such-like matters, as to the time and place, and the extent to which the prawn may be used without injury to the after chances of the angler; but the general practice in the north is to reserve the prawn as a last resource—from the opinion, no doubt, that should the fish be off the take, this will make them the more so. Certainly nothing is more distasteful to a neighbor on the opposite bank than to have the water he is about to fish over with the fly raked “fore and aft” with the prawn or any other trolling bait.

“Many elaborate descriptions of prawn tackle and the mode of dressing it are given in

books on angling, filling whole chapters. The Dee and Don anglers have a very simple method of dressing, which is in every way preferable to that requiring complicated tackle, and may be described in one or two sentences. All that is needed is a flight of two triangles and a stocking needle. The stocking needle is first inserted longitudinally from tail to head, as the prawn is fished head downward. The loop of single gut, on which the triangles are whipped from an inch and a half apart to two inches, is run through the eye of the stocking needle, and the triangles are fixed, one into the belly of the prawn and one on the back, the whole being whipped in wide coils by a piece of red silk thread. Should the water be heavy, the spinning trace may be leaded to suit. The rod, reel and line are just what may be used at any other time in searching for fish with the phantom or live minnow. From the Malloch reel the bait is thrown across the stream—more down than across—and is worked down with a somewhat slower motion than when spinning with the natural minnow, and much after the fashion of a large, well-sunk salmon fly. Instantly the fish are felt they must be struck sharply to ensure a hold. Now just a word about the procuring and preserving of this bait. There are prawns and prawns, and, as much of its success depends upon its color, this should be particularly attended to. After many experiments it has been found that the best prawns are those which are boiled immediately they are caught, and bottled in diluted glycerine almost immediately they are boiled. Freshness is the secret of the color when the crustacean is in season and well matured, and no imitation of this enigma of enigmas or sickly substitute will fascinate the eye or tempt the dainty palate of *Salmo salar* like the veritable ‘Simon pure.’ ”

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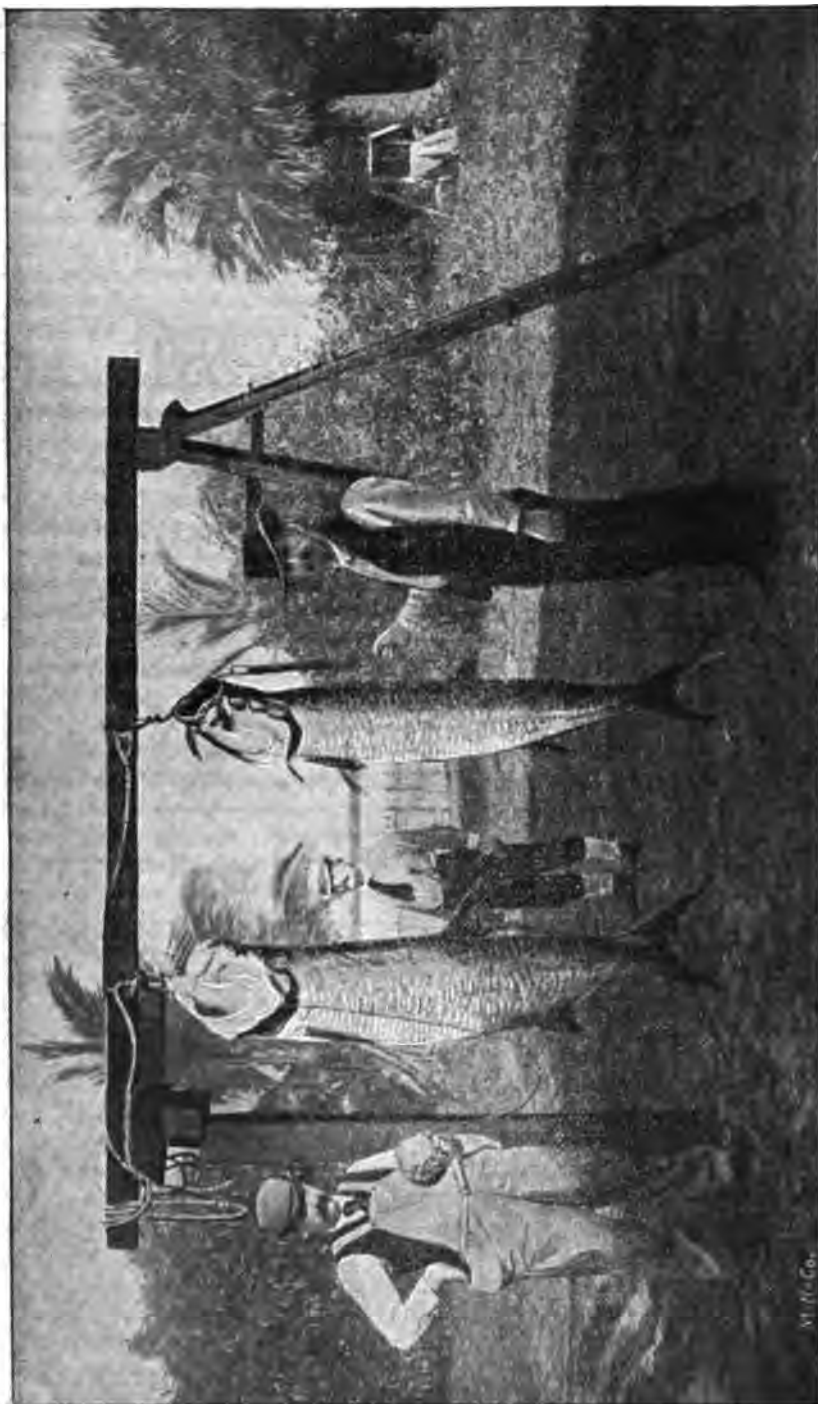
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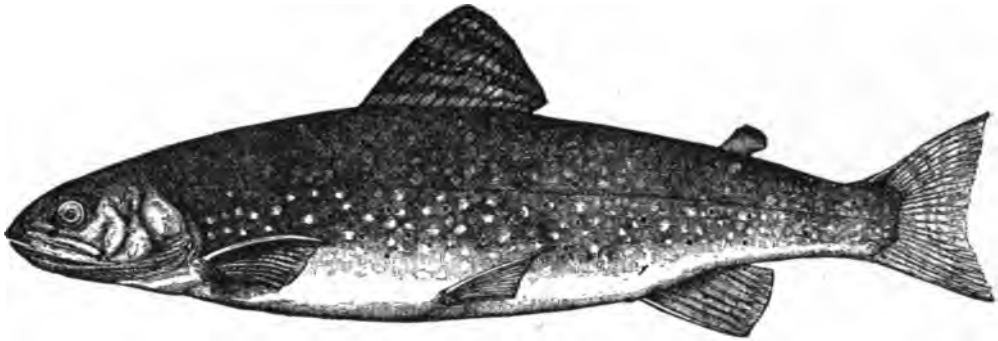
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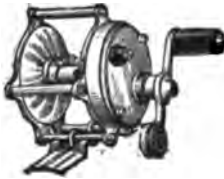
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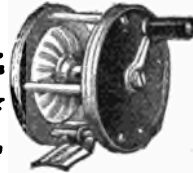
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**FIGURE 1.**—Shows Celluloid reinforcement for both male and female Ferrule.

**FIGURE 2.**—Shows male Ferrule, with reinforcement of Celluloid underneath German Silver Ferrule.

**FIGURE 3.**—Shows sectional view of the waterproof joint from shoulder up.

### WHAT THE ANGLERS SAY.

THE PARADISE FIN AND FEATHER CLUB, LAO DEL GRANDES ISLES, CANADA, July 14, 1890.

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Yours respectfully

KIT CLARKE.

*A. G. Spalding & Bros., Chicago, Ill.*—MY DEAR SIRS:—I know it will please you to hear a report on the action of the five-ounce "Kosmic" trout fly-rod you sent me—because it is emphatically a good report. With a half dozen rods of my own, it is the best one I ever had in my hand, and during a visit to Castalia this week, all the club members who saw it spoke highly of its admirable qualities. The keeper, also, who is a beautiful fly caster, said it was "the best little rod, and the biggest little rod," he ever saw. They know a good one when they see it at Castalia, too.

Yours sincerely,

CHAS. W. BURROWS,  
President the Burrows Brothers Company.

MY DEAR SIRS:—I never had a rod that hooked a fish as easily, and held it as well as my first "Kosmic." And in this respect the new rod works as well as the old, and I have already done with it some very good fishing.

Sincerely yours,

I. LIVINGSTON REES.

*Messrs. A. G. Spalding & Bros.*—GENTLEMEN:—I take pleasure in acknowledging the receipt of the little five-ounce "Kosmic" fly-rod which you have built for me. It is a "dandy," the best I have ever possessed. Its excellence, casting qualities, artistic mounting and beauty of finish displayed in the rod, commend it to all anglers. It is the most perfect rod I ever used, but I need not go into particulars, for, as a whole, it fills all my desires for a rod, and seems as near perfect as man can make it. It is a beauty as well as a perfect piece of workmanship. I shall now feel good all over when I go to rig my cast of flies. I congratulate you on your success in getting up so handsome and so excellent a rod.

Yours very truly,

GEORGE L. BRADFORD.

*Messrs. A. G. Spalding & Bros.*—GENTLEMEN:—The working of the six-ounce "Kosmic" rod, which I obtained from you, exceeded my most sanguine expectations. I took with it three black bass in succession, weighing respectively two and a half, two and three pounds. I was fly casting from shore, and, not having landing net with me, I had to drag the fish up a shelving rock; but the little rod stood the strain admirably. I have caught many bass with the same rod since, but none as heavy as those three. Notwithstanding the hard usage to which I have subjected it, its "line" is perfect and its "backbone" unimpaired. I can, and shall, cheerfully recommend the "Kosmic" rod.

Yours very truly,

SAM SUM.

*Messrs. A. G. Spalding & Bros.*—MY DEAR SIRS:—Referring to your inquiry about the Kosmic rod I purchased from you, I beg to say that I have found it absolutely perfect. I never could believe that so light a rod could be built so stiff and strong. I hooked six mascalonge on it and landed five out of the six; the other one was lost in gaffing alongside the boat. The heaviest fish I had on was about forty-two pounds, and the one I lost was about the same size, probably the mate of the first one, as it was struck only a few yards away. I can conscientiously say that the Kosmic is the most satisfactory rod I ever fished with.

Yours very truly,

J. CHURCHWARD.

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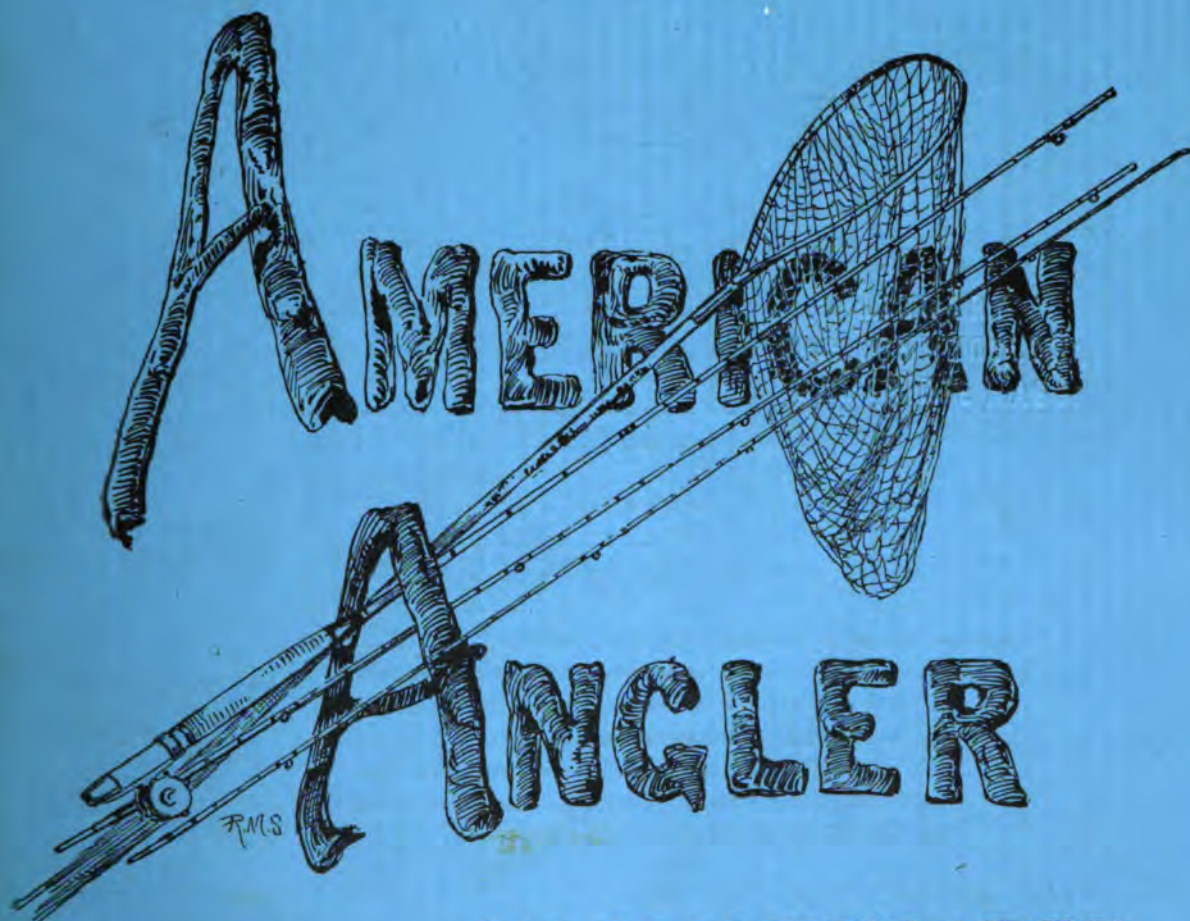
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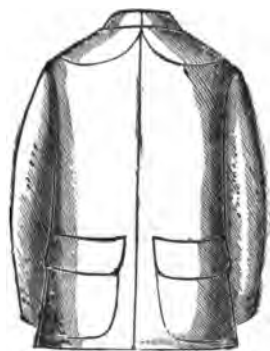


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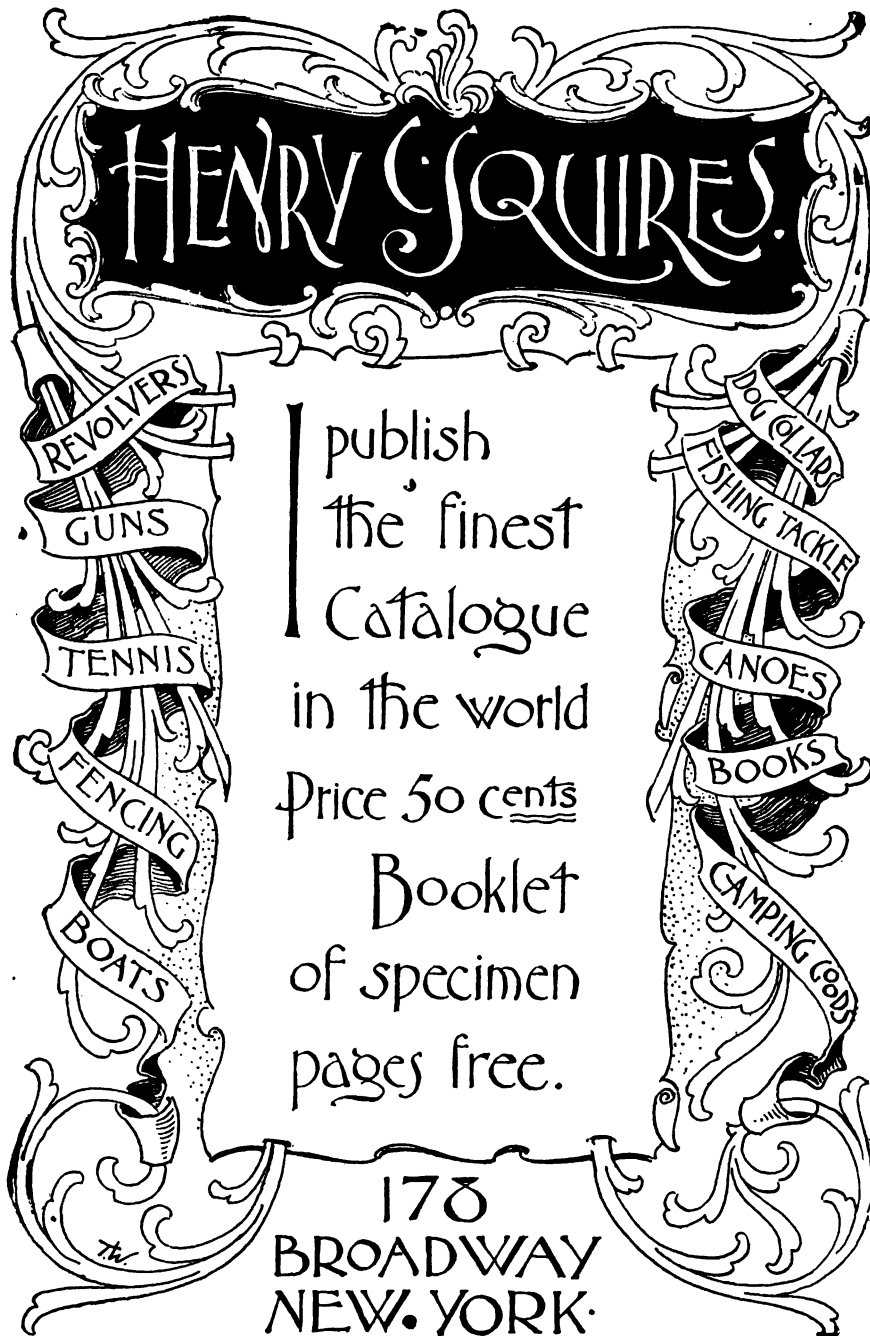
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# THE AMERICAN ANGLER.

VOL. 21.

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No. 5

## AMONG THE MICHIGAN GRAYLING.

BY WILLIAM C. HARRIS.

Günther states that five species of grayling inhabit the streams of the north of Europe, Asia and North America, one of which is the *Thymallus signifer*, or the grayling with which we have to do, the *Poisson bleu* of the Canadian voyageurs. Prof. Milner claimed three distinct species, viz: *T. signifer*, of British America and Alaska, mainly distinguished by the males having a higher dorsal fin than those of the other species; the *T. tricolor* or Michigan grayling, with a larger head and smaller scales, and the *T. montanus* or Montana grayling, living in the head waters of the Missouri River, with a deeper body, and scales equal in size to that of the Michigan fish. It has, however, been decided by an eminent ichthyological authority (Dr. David S. Jordan) that the above so-called species are varieties only of the *Thymallus signifer*, the habitat of which ranges from Northern Michigan to Montana, northward to Alaska and the Arctic Ocean. Of the foreign species but little is known, with the exception of the *Thymallus vulgaris* found in the waters of England and on the continent of Europe; on the latter, Manly tells us, it is widely distributed from Lapland, where it is most abundant, to the "great toe" of Italy.

Wherever found the grayling lives under the same physical conditions as he does in America, with this exception: that in Michigan this fish must be sovereign in his waters or else he will decrease in numbers and finally die out. This has been disputed, but facts bear out the above conclusion. Mr. E. D. Fitzhugh, of Bay City, Mich., the pioneer of American grayling

anglers, under date of September, 1884, wrote to Prof. Baird that the Au Sable River was being denuded of its grayling and had become a fine trout stream.\* The same result obtains with many other fish. Whenever the lower portion of a trout water of repute becomes a haunt of the chub, the trout gradually disappear, for the chub, although a less voracious fish than the trout, is a great spawn eater. Trout are equally fond of the spawn of other fish, and as such become the pest of many of the best salmon streams of Great Britain, and when *salvelinus* gets a firm hold in the waters of the meeker grayling he destroys not only the eggs, but the parent fish. The grayling is not a fish eater. The same parallel is self-evident in the case of the black bass, although not a confirmed spawn eater—wherever he gets a footing, chub, pickerel, trout, *et al*, must go; it is only a question of time, the period of which is determined by the extent of the waters containing these fish. The evolutionists' creed of the "survival of the fittest" should, when applied to the above fish, be paraphrased into the survival of the mightiest. On the Manistee I saw no fish but the grayling, and was informed that there were none other in the river.

The grayling law of Michigan is strict; the fish are not allowed to be shipped out of the State nor to be exposed for sale on the market stalls; the close season is protective and just,

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\* Mr. F. no doubt referred exclusively to the lower portion of the Au Sable River, as reports from that stream by letter and from personal intercourse with grayling fishers confirm former accounts of the abundance of the grayling in the upper waters of the Au Sable.—W. C. H.

and is generally observed. It will not pay a netter to pot a fish that he cannot sell. But with it all I thought more than once, when on the Manistee, that the Michigan law should go still further, if this lovely game fish is to be preserved for all time. It should be made incumbent upon the Fish Commissioners of the State to restrict the planting of fish-eating fish in any waters confluent or flowing from the grayling streams. If this is not done *thymallus* is doomed even in this generation.

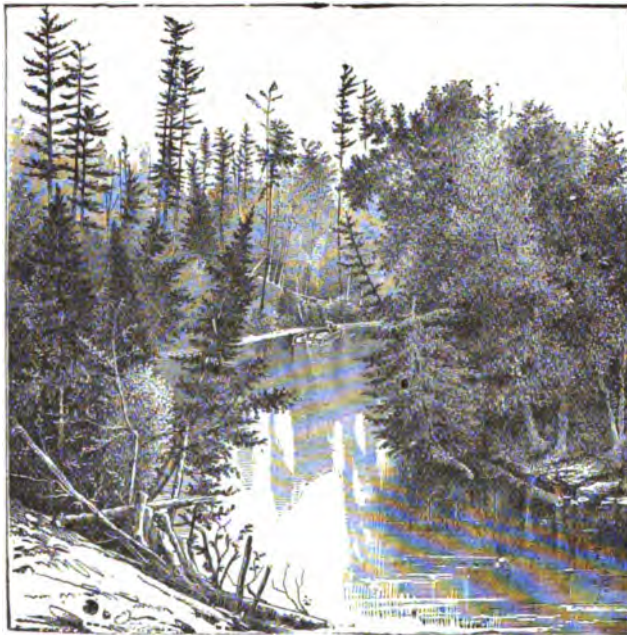
The grayling of the Michigan streams is becoming more restricted in its habitat, owing to the intrusion of the trout and the gradual settlement of the forest lands. One factor, however, which delayed this sad result arose from the withdrawal from market of immense racks lying along, and adjacent to, the Manistee River. This

good effect was, however, only temporary, as the interests of the railroad and the public demand for the opening up of these new lands was so urgent that ere many years the wilderness will become dotted with corn cribs and hayricks, the banks of the streams denuded of their forest growth, and slowly, but surely, the purity of the waters polluted.

Such a result, to an angler who has camped on a grayling stream and cast a fly over its waters, will be somewhat like the breaking up, by death, of a home tie. Sad, doubly so, because no power on earth can link the chain

again. An angler whose love of communion with Nature is the spirit of his earnestness in the pursuit of his art, finds in the gentle quarry of these streams a fish in accord with the primitive loveliness of its habitat. The coloration of its body, tinted with purple and over-toned with a gray and silver mantle wherefrom a delicate violet seems to glow, is but a reflex of the clouds, down stream, at the close of the day. The depth of the hush of the woods, which is almost tangible to your touch, is not

unthreaded by the gentle swirl of the rise of the fish or its modest "pluck" of the fly. There is no coarse gratulation or pride as you free its tender mouth from the steel, and the angler's duty incumbent upon you to save it from a lingering death by breaking its neck, makes you feel as one would imagine a hangman should feel who is charged



THE MANISTEE RIVER.

with "doing unto death" an innocent.

The history of the grayling, as recorded abroad and in America, is full of interest to all lovers of the angle. In the earliest mention of this fish it bears the name of umber.

"*Effugius oculis celeri umbra natatu*," writes Ausonius, which may be anglicized as follows:

The smooth-scaled umber, as it passes by,  
Flits like a shadow o'er the gazer's eye.

The *Thymallus* of Ælian was doubtless the umber.

Father Sanctus called him the umber, "the queen of delight."

Dame Berners, in 1496, writes:

"The grayllynge, by a nother name callyd ombre, is a delycyous fyfthe to mannys mouthe."

Hoppolito Salivani, an Italian physician of the Sixteenth Century, says that it is also called the shadow fish, "from his swift swimming or gliding out of sight, more like a shadow or a ghost than a fish."

Old Walton, in 1653, uses the name grayling and umber indiscriminately, and speaks of this fish in the most loving terms, telling us that Aldrovanus says of it:

"It was made by Mother Nature of such exact shape and pleasant colors purposely to invite us to a joy and contentedness in feasting with her." Again, from his favorite authority, Gesner, that "the fat of the umber being set, with a little honey, a day or two in the sun, in a little glass, is very excellent against redness, or swarthinness, or anything that breeds in the eyes."

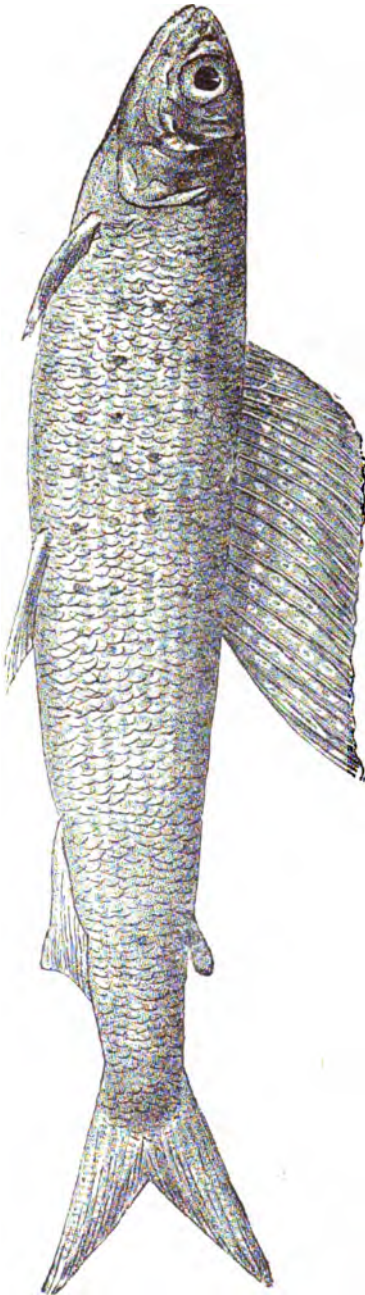
Walton also tells us that St. Ambrose, "the glorious Bishop of Milan, who lived when the church kept fasting days, calls him the flower fish or flower of fishes; and that he was so far in love with him that he would not let him pass without the honor of a long discourse."

All modern English writers on angling generally couple the name of umber with grayling, and

the question of its introduction, by the old monks, into England or its nativity there, has been discussed in all works on angling coming from the English press. We believe that they have finally determined that it is an indigenous fish, with a restricted habitat. It certainly has been known, angled for and eaten in their country for the last five centuries.

To the anglers and ichthyologists of the United States it is comparatively a new fish; to the latter it only became known as a native fish in the year 1860; it was then observed by Surgeon J. F. Head, U. S. A., as inhabiting the head waters of the Missouri River; it was, however, discovered and described during the first voyage of Sir John Franklin to the Arctic regions in 1819-'22. Later on Prof. E. D. Cope, in 1864, examined specimens of the Michigan fish and gave it the name of *Thymallus tricolor*.

To Mr. J. V. Le Moyne, of Chicago, Ill., the anglers of America are indebted for the addition of the grayling to the list of American game fishes. He was attracted by the description of the fish published by Prof. E. D. Cope in 1867, and the following year organized a party and visited the river Jordan, where he had great sport with the grayling. During the next season Mr. D. H. Fitzhugh, of Bay City, Mich., visited the Au Sable, and from that date has been a most indefatigable angler for, and enthusiastic



THE MICHIGAN GRAYLING

over, the qualities of this fish, of which that veteran angler, Francis Francis, of the *London Field*, writes:

"If the trout be the gentleman of the streams, the grayling is certainly the lady."

So much for the history of the grayling; now, a few words as to the water it loves to live in, its habitat in the streams of Michigan.

In the southern peninsula of Michigan, lying south of the Straits of Mackinaw, the streams flowing into Lake Michigan, including the Manistee, upon the banks of which we camped, have a bed of hard yellow sand with patches of water weed growth, here and there, where anchored wood drift has gathered a sustaining soil in spots sheltered from the force of the down-pouring waters. The current of these streams is swift, at times certainly flowing at a speed of six miles an hour, making sharp bends and scooping out deep holes, where the grayling love to lie. The temperature of the water is that of a rock-gushing spring. In fact, all along the Manistee (the grayling stream with which I am personally familiar) springs are bursting out from the sandy bed, furnishing the only physical condition under which this gentle fish can live, viz.: in spring-fed waters of a uniform temperature of forty-five to fifty degrees during the summer months.

There is a striking peculiarity—I had almost written idiosyncrasy—about the fastidiousness

of the grayling in its choice of habitat, which is as strongly defined in the foreign fish as it is with ours. In England it will live and thrive in waters of certain counties possessing the characteristics named above, and, though it has free access to other streams similar in every respect, including temperature, it is never found in them. I think it is Manly who marks this peculiarity and illustrates it as follows:

"A friend and myself were enjoying a week's fly fishing on the waters of the Pembroke property round Wilton, and in the river which ran north of the town (the Wylie, if I remember rightly) we took many grayling, while in the river which ran south (the Nadder) we took nothing but trout; but in the water below the junction of the two rivers outside the park in the direction of Salis-



A MANISTEE POOL.

bury, we took both trout and grayling. We noticed the fact, and, on inquiry, learned that not a single grayling was ever found in the Nadder, though they were fairly plentiful immediately after its junction with the Wylie."

I have never noted any reason assigned for this peculiarity except that of the temperature of the water. May it not arise from the fact that the grayling, not being a fish eater or very seldom so, chooses the stream wherein it finds the insect food upon which it feeds most plentiful? It were well for future grayling fishers to observe closely the feeding habits of these



fish, and make a record of the food found in their stomachs as well as that of the insect life in and on the streams. My own stay on the Manistee was too brief to allow me to gather facts, and the above is merely a suggestion.

Let me here state that the peculiar thyme-like aroma that is said by all writers to emanate from a grayling was not observed by me.

This fish has (to me, at least) no decided odor different from the ordinary scent of freshly-caught fish from spring-fed waters, and, in comparison with the delicate cucumber fragrance of a recently creeled small-mouth black bass, is of the fish, fishy. I know it is almost sacrilege to deny this beautiful fish the poetic quality of smelling sweetly, for all Pagan and Chris-

tian writers on fish for nearly three thousand years have awarded it a delicate, thyme-like smell, but—it hasn't got it.

Then, again—its flavor. Let us look into the conflicting testimony regarding the grayling as a table fish.

St. Ambrose, the old monk, considered him "prime eating for miserable sinners."

Father Sanctus, as above quoted, calls him "the queen of delight" when eaten.

In Switzerland, during the Sixteenth Century, he was accounted the choicest of fish, so said Walton, and Gesner was his authority.

Cotton wrote: "He is very good meat at all times," and "little inferior to the trout."

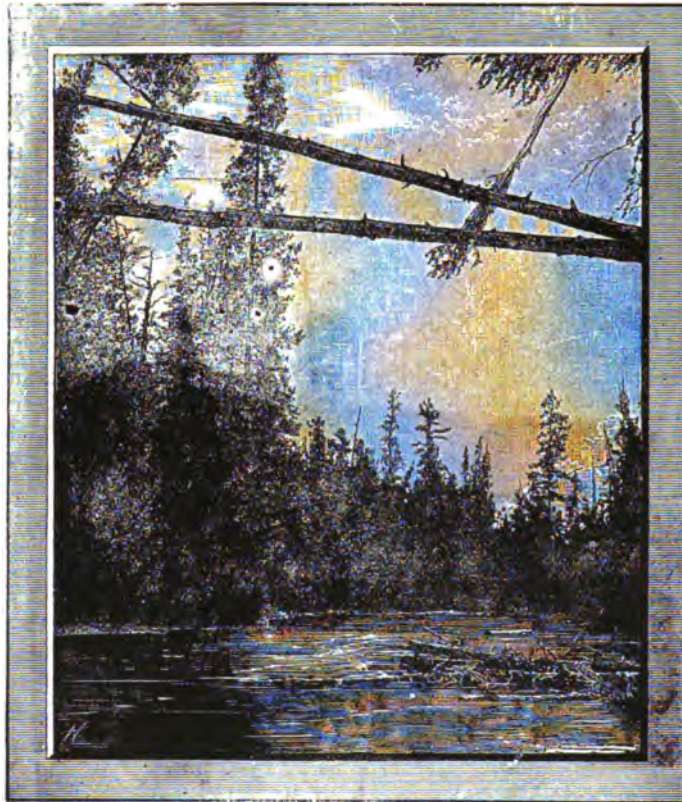
Bear in mind that grayling do not change the quality of their flesh in different rivers, so there cannot be much difference in their flavor, and then read on:

Manly says: "He is not to be compared to any fairly good trout, though I willingly acquit him of that muddiness which so distastefully attaches more or less to most of our (English) fresh-water fishes."

J. Harrington Keene, a British author, says he is about equal in flavor to the carp—an opinion decidedly indefinite.

Francis Francis contents himself with: "A September fish is better than an August fish, October better than September, and November best of all." Rather non-committal.

Returning from across the big water we have Uncle Thad. Norris, who, although he fished for weeks on both the Au Sable and Manistee, abstains from comment on the edible qualities of the grayling, but quotes a lumberman who said "it was a beautiful fish and of delicious flavor."



A BOARDMAN RIVER POOL.

Charles Hallock says that "it is excellent in flavor," and this closes the list of angling authors, within our reach, who have written as to the flavor of the grayling.

My own opinion is that the flesh of a grayling in good condition is nearly as firm and flaky as that of the trout, but has no special flavor to commend it to the palate—it is not a delicious morsel—a fair pan fish and nothing more.

Our outfit for the grayling trip consisted of two split bamboo rods, one of six ounces and one of three and five-eighths ounces, the latter certainly the lightest rod ever used on the waters of the Manistee. It was not quite nine feet long, but it killed ninety-seven grayling, ranging from one-quarter to three-quarter pounds in weight, comfortably and efficiently. As the years grow on him an angler is inclined to the use of light rods, despite the dictum of rod makers that *balance* is the great desideratum in a rod, and that one of nine ounces, well balanced, will feel as light as one of four ounces equally well balanced. Certainly our three and five-eighths ounce rod did good work with less fatigue than any rod we ever handled. In addition to the rods we had a couple of thirty-yard enamelled water-proofed G lines, two light click reels, a book of assorted flies tied on No. 10 and 12 Sproat hooks, a folding landing net and the usual supply of clothing for camping and fishing. We have a holy horror of "old maidism" in the get-up of a fishing outfit. A man who can argue for weeks over the angle of draft in a hook, or the composition of

a metal best for a reel, or the shade of color imperatively necessary in the wing-tip of an artificial fly, a hair splitter in the theory of the construction of tackle, or a potterer in the practice of it, is apt to lose (if he ever had it) that enthusiasm in the pursuit of his art which alone ensures expertness after years of experience. We do not class with the above theorist the earnest amateur, who, with a natural skill in the use of tools, works at the bench to construct a rod of material and dimensions suggested by stream experience, or a fly with a

combination of colors in imitation of an insect at which the trout rose in a well remembered pool. To such we are all indebted (more especially the professional tackle makers) for the rapid advance during the last decade in the skill of construction and the practical value of the implements used in angling.

Profs. Jordan and Gilbert, in their "Synopsis of North American Fishes," give the following

technical description of the grayling:

*Thymallus signifer*, Richardson, American grayling.—Body elongate, compressed, highest under the anterior portion of the dorsal; head rather than short, subconic, compressed, its upper outline continuous with anterior curve of the back. Mouth moderate, the maxillary extending to below the middle of the eye; jaws about equal. Eye quite large, about three in head, rather longer than snout, equal to the interorbital space. Scales moderate, easily detached. Lateral line nearly straight. A small bare space behind isthmus. Dorsal fin long and high, its length rather greater than the depth of body, its height varying, greatest in the males; adipose fin rather small; anal fin small. Gill-rakers slender, short, about eleven below the angle. Coloration brilliant (in var. *tricolor*) purplish gray; young silvery; sides of head with bright bluish and bronze reflections, sides of body with small, black, irregular spots, most



BOARDMAN RIVER—GRAYLING AND TROUT.

numerous posteriorly in young specimens; ventral fins ornate, dusky, with diagonal rose-colored lines; dorsal fin with a black line along its base, then a rose-colored one, then a blackish one, then rose-colored, blackish and rose-colored, the last stripe continued as a row of spots; above these is a row of dusky green spots; then a row of minute rose-colored spots, then a broad, dusky area, the middle part of the fin tipped with rose; anal and adipose fin dusky; central rays of caudal pink; outer rays dusky. Head,  $4\frac{3}{4}$ ; depth,  $4\frac{2}{5}$ ; D., 20; A., 11; Scales, 8-90-9; L., 18 in. Northern Michigan to Montana, northward to Alaska and the Arctic Ocean; abounding in clear, cold streams in suitable locations.

To the description of the coloration of the grayling by Profs. Jordan and Gilbert we can add but little, yet only a faint idea of the beautiful purplish glow of the body, or the iridescent splendor of the dorsal fin, can be formed from reading the above, for the blending violet tints, that seem to undulate in delicate



TORCH RIVER.

waves of purple as you lift the fish from the water, has never yet been limned by artist brush or described in prose or verse. However, if we are not able to transfix upon these pages the beauty of the grayling, except in the cold outlines of a black and white portraiture, we certainly can tell our readers how we caught a goodly mess of them in our three days' outing on the Manistee.

This fish is seldom found on shallow rifts or in the swift flow of the current at the head of pools, but rather in the lower reaches of long and relatively deep waters. When seen in the

former he is certainly as timid as the trout, darting from shadows down stream like a rainbow flashing beneath the surface. In the deeper waters, more particularly those running through meadows (we refer particularly to the fish of the Manistee), they may be seen rising and surface feeding. They seem to delight, like the trout, in shifting shadows, for we have seen them, time and again, stop rising when the full glare of the sun was on the water, and

then popping out everywhere so soon as a passing cloud, with changing patches of shadow, darkened here and there the bosom of the pool. At such times they rose in sunny as well as dark spots, but never leaping out of the water; in fact, during our stay among them we failed to see a fish

throw his full length upward, except when hooked. It was only when the drifting clouds threw their shadows over the pools that we were successful in killing the grayling, and, under this condition, midday seemed as propitious as the twilight hours or even when night came on.

Fishing for grayling is similar in methods to that for trout. The flies that will kill one will kill the other. On some grayling streams, however, particularly the Manistee, the fish show a decided preference for certain flies, especially those having silver tinsel in



their composition. We found the "Beaverkill" the most alluring fly, but those of our companions who did not use it caught equally as many fish as we did. Of course with our experience we will swear by the Beaverkill, which fact will serve to illustrate the tenacious vanity (and weakness) with which not a few anglers serve up their stubborn preferences for some particular fly, *the only fly that will kill*.

Our advice to those who visit grayling waters is to take with them plenty of flies with white in their make-up. The coachman is always a sure fly; indeed, it seemed to answer as well in midday or bright days as on dark days or in the gloaming. All the flies that kill trout on our Eastern mountain brooks answer well for the grayling. The "red tag," an English make of fly—red hackle with a scrap of crimson floss for a tail—kills well.

As to rod, leader and line, use as light as experience in handling such gear will permit.

This fish is not a tough fighter, does not bear upon tackle nor strain it with wild and sudden swirls, and darts like the trout. We would recommend a six-ounce rod, fine trout leader, gossamer if you please, and a line as fine as you can lay out well in casting, and a hook of Eastern trout flies (we don't object to quantity, but be sure and have some good ones among them, such as we have indicated above). Provide yourself with wading gear, as many portions of the grayling streams can be waded, and it will be a great relief to step from the boat, now and then, and cast from the banks or shallow places of the stream. We would rather catch three fish with our feet in the water than thirty with a boat floor beneath them. We cannot learn to love fly fishing from a boat. We simply endure it.

As your boatman checks the rapid drift of the boat down stream, you will observe, here and there, a deep hole hollowed out alongside and from under the bank, the bottom of which—showing irregular patches of glistening sand, alternating with dark spots where the drift of the stream has settled—can be seen at a depth of fully three feet. It is here that the grayling lurk, bottom feeding, for we did not see them rise to the surface at such places, and a sunken fly only was apt to lure them. One

of our companions, a persistent worm fisher, took a couple of dozen fish from these pools, where even our Beaverkill failed to raise a fin.

Farther down, as the stream widens and ceases to "wimple," as "Clou d'Argent" poetically puts it, you will reach the long stretches, where there is a slow current and relatively deep water from three to eight feet. It is on such ground that you get the most and the best fish. You will see them rising all over the great pool. Near the head and at the lower end, not so many, but upon the surface, midway where the deeper waters are, may be seen hundreds of fish feeding or disporting. Here is your opportunity. Cast some forty to fifty feet, or even less (the grayling is not so scary as reported), and allow your fly to sink a few inches under the surface; then, imparting a tremulous motion to the tip of your rod, draw the fly right or left, as the conditions indicate, and the velvet-robed beauty will be apt to take it, not with a great hungry rush and leap like *fontinalis*, but with a gentle mouthing, as if with a tender appreciation of the good things belonging to fish life. We do not mean that a grayling never strikes with vim; he does so at times, but it is an exceptional habit.

Strike gently and not too quickly. If you miss, cast again in the same spot and repeat it four or five times. A grayling seems to love to feed in about the same place for a long time. We noticed at the head of our favorite pool but one fish rising in an area of about fifty feet. He seemed to come up within a yard of the same spot every time, and this went on for an hour undisturbed by our occasional casts for him, when we gathered courage to leave the bonanza we had found some two hundred feet below. He owned that ground.

Although not a cannibal—a quality that lords it supreme in fishdom—he was evidently sovereign of the domain.

Now just here we will be rapped over the knuckles for presuming to differ in opinion with the savants and the fathers of the craft. It has become the fashion—on the "follow your leader" principle—from Izaak Walton down to Thad. Norris, to say that the grayling has such a tender mouth that he must be struck and played gingerly and gently, or else he will

tear loose from the hook. All fish of fresh water, even the black bass, should be struck gently. Yanking the hook into a fish's mouth is a sure evidence of a bungling fisher, a tyro, or a blusterer in the art. The trout, the bass and the grayling, as well as all other fish, hook themselves nine times in ten. It is, and must be, the care of the angler that no slack line exists as the fish turns with the lure in his mouth; that provided for, the keen point of the hook, the tender flesh of the mouth, ensure the fastening of the fish. We do not care to tell how many fish we failed to hook on this trip, but we did not lose a fish when once hooked, notwithstanding that we "kill quickly" every fish of whatever kind that we chance to hook. We

made no exception of the grayling in this practice, and of the ninety odd fish we played and boated not one tore loose from tenderness of mouth. This result we credit at once to the lightness and pliancy of the rod we used—its give-and-take quality. Doubtless many of our readers have caught weakfish in salt water; if so, they know to their regret what a large proportion of fish is lost on the heavy gear habitually used for such fishing. Let them do as we did and be happy. Take an eight to ten-ounce fly-rod down to salt waters where the tides are gentle, use no sinker, but a nine-foot single gut leader, single hook, and you will be surprised at the small number of fish lost. Your pliant rod does the work.



## CLAYTON, N. Y., AS AN ANGLING CENTRE.

By ARTHUR WALLACK.

The best counter-irritant and relief I know of for that "tired feeling" is an outing, with either your gun or your rod for a companion. Your Saratoga's, Coney Island's and Long Branch's, with their heavy hotel bills, only serve to make one worse instead of better. Nothing brings one into fellowship with Nature in all its loveliness so closely as the simple and innocent recreation of either fishing or shooting. The influence of the sun and wind, the fresh air, the bracing breeze and the constantly varying objects which everywhere arrest the eye and impress the senses, form a wholesome and refreshing contrast to the daily contemplation (as, for instance, in *my* case) of rejected manuscripts and unfinished articles.

It is not my intention to write a treatise on shooting or fishing nor to attempt to teach the reader how to do either. My object is to draw the attention of those who have no knowledge of the place, to the many advantages the St. Lawrence River possesses for all who are in pursuit of health, recreation and sport at a moderate outlay in comparison with the so-called fashionable summer resorts.

For a number of years I have been in the habit of visiting the town of Clayton, N. Y., situated on the St. Lawrence River about fourteen miles east of Lake Ontario, and it is this place and its surroundings that I wish to recommend as a panacea for that aforesaid "tired feeling."

Taking the night train on the New York Central Railroad, you will find yourself in the quaint and somewhat primitive little town of Clayton in time for breakfast the following morning. I doubt if there is in the whole length and breadth of this vast continent a more beautiful bit of rural loveliness than the Mohawk Valley, through which the train passes after leaving Albany. And in no way inferior to it is the scenery which meets the eye when, after leaving Utica, the train, taking a northerly course, follows the Black River. The journey from New York is made without change, and the Wagner cars with which the

road is supplied are models of elegance and comfort.

Upon reaching Clayton the traveller will find three hotels to choose from. These are "The Izaak Walton," presided over by genial "Dick" Johnston, known to every visitor to the St. Lawrence for the past fifty years or more; "The Hubbard House," kept by Mrs. James Hubbard, and the "New Windsor Hotel," of which Mr. Wm. Hawes is proprietor. At either one of these houses you will find comfortable beds and good, plain living, and all hands will vie with one another in trying to make your stay a pleasant one. The town is admirably located, being on a promontory jutting out into the St. Lawrence, having on either side a large bay. It possesses an advantage in its position unequalled by any point on the river, for, unlike Alexandria Bay, which is hemmed in by islands, you can get a view of the grand river from Clayton, which, in itself, is worth a journey from New York to see.

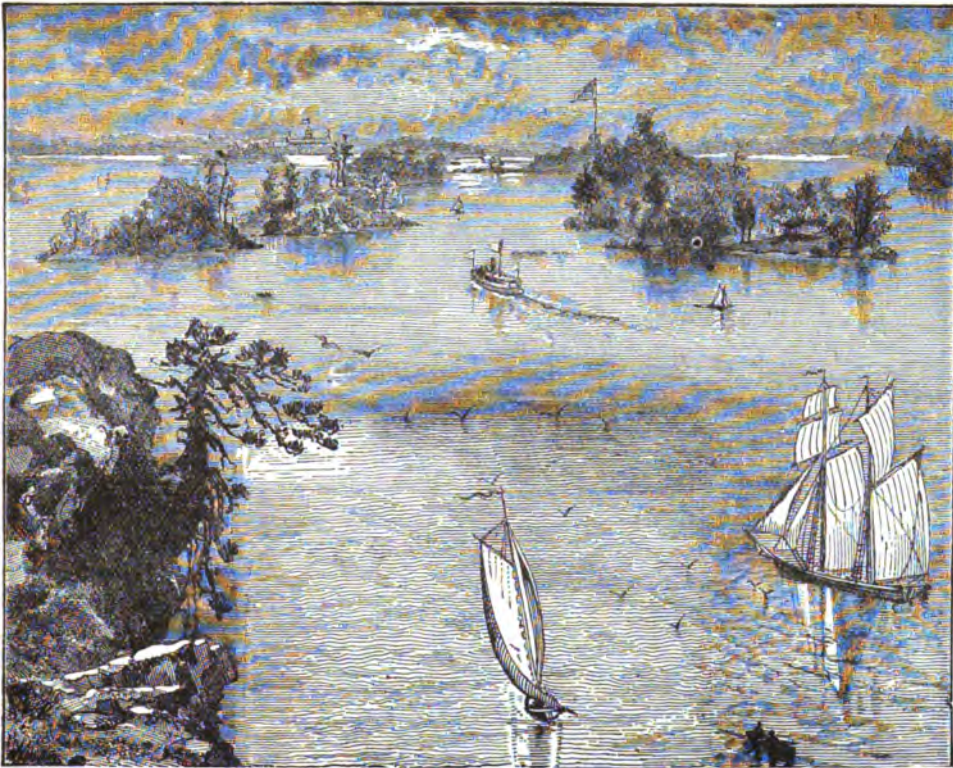
Clayton has without doubt the finest harbor on the American side of Lake Ontario and the St. Lawrence River, and, being the terminal point of the New York Central Railroad at the Thousand Islands, it is the natural base of supplies for that great summer resort. The little town has a history of its own, for during the war of 1812 it was the scene of a brief conflict between the Americans, under Gen. Browne, and a strong attacking force of the British. The attack was repulsed, but was renewed on the following morning, when the British were again defeated and forced to abandon their assault.

In olden days Clayton turned out a great many finely built and well equipped vessels, but that day has gone by. There still exists, however, a large shipyard, owned by Mr. S. G. Johnston, who has built in the past few years several of the fastest steam yachts on the river. It was at this yard that the well-known palace steamer, "the St. Lawrence" (without doubt the finest vessel of her kind on the river), was built. She is now owned by the Messrs. Fol-

ger, of Kingston, Ont., who practically control the passenger carrying trade of the Thousand Islands.

Having on one or two occasions suffered severely from fire, the attention of her citizens was drawn, some time ago, to the necessity of an improved fire service, with the result that in a short time Clayton had organized an engine company, of which Mr. John Foley, one of

every other building, is the most conspicuous object in the town. This edifice, which was erected at a cost approaching fifty thousand dollars, is built entirely of stone, and is 114 feet in length, with a width of fifty-five feet. It is without doubt the finest structure of the kind in Northern New York. It is presided over by the Rev. Father E. G. Brice. There are several other places of worship in the town,



VIEW OF THE THOUSAND ISLANDS NEAR CLAYTON.

Clayton's most energetic and influential citizens, is engineer, two hose companies and a hook and ladder company, the total number of firemen being ninety-six. These companies are among the best equipped in the State, and the men are thoroughly disciplined and prompt and ready to answer the first call.

Clayton has a great deal to be proud of in the really magnificent Catholic Cathedral of St. Mary's, which, towering as it does above

prominent among which is the Episcopal Church, which, through the popularity and eloquence of its pastor, the Rev. Mr. Walton, has become a great favorite with the summer visitors. There is also a Baptist Church, a Methodist Church, and a newly-erected Congregational Church.

As viewed from the water, the town is, to say the least, unattractive, for its river front being built up, the only view you get as you pass is

the very uninteresting one of back premises of a number of stores. The place is so admirably adapted in its situation for a first-class watering place that the short-sighted policy of the inhabitants in allowing what should prove its chief charm—the river view—to be shut out, is inexplicable. The cost of removing the present unsightly buildings that now disfigure the river front would be small in comparison to the inestimable advantage and gain to the town. This done and a modern hotel built, facing the river, with handsome billiard room, bowling alleys and lawn tennis courts, Clayton would soon have no rival on the St. Lawrence.

The admirable management of the New York Central Railroad has already made itself felt, for, though this great company only assumed the control of the Rome, Watertown and Ogdensburg Railroad last spring, Clayton enjoyed during the summer the greatest prosperity it has known in years; and property, not only in the town, but all along the river increased in value in consequence of the vastly improved railway service.

Within easy rowing distance the best fishing to be had in the river can be enjoyed, and during the fall the shooting for wild duck, quail, partridge and (if the sportsman is inclined for

a run over to the Canada side) deer can be found in quantities to satisfy the craving of the most ardent Nimrod. Fishing is, of course, the sport most indulged in, and in the height of the season men, women and children can be seen pursuing their favorite recreation with more or less success. Some trolling for pickerel, some still-fishing for anything that comes along, a few of the more ardent casting the fly or the minnow for the gamy black bass, whilst now and then you will find one intent on the capture of the mighty mascalonge. From "early morn till dewy eve" they remain out on the water, drinking in renewed health and strength with every breath. About six o'clock the boats all return, and from that hour until bed time the air is thick with fish stories. Should one of the number have been so fortunate as to catch a mascalonge or a box of good bass, he or she, as the case may be, is the hero or heroine of the hour.

To a man who appreciates the beauties of Nature there is no recreation which introduces him to more pleasures than fishing; nor is there any pursuit better calculated to relieve the overworked brain. To properly enjoy this sport at Clayton you should, having made arrangements with your oarsman the night before,

make an early start—say from seven to half-past. At this time the wonderful elasticity of the air is most exhilarating, and one feels what it is to really enjoy life with that degree of intensity that makes mere existence so joyous to the dwellers of the country. There is something glorious in finding oneself on the river and to feel that a long day of rest and quiet is before you, and it matters not whether stocks are up or down, whether business be good or bad, provided the fish bite.

The angler's sole business in life, *pro tem*, is to catch and play his fish and to let the fresh morning air blow on his face, giving him health and



ENTRANCE TO LAKE OF THOUSAND ISLANDS.



appetite—to say nothing of “drinketite”—whilst he pursues his sport. The actual fishing is simply the backbone of the recreation of fishing, as the real joy depends on the attendant incidents, for the true fisherman finds his pleasure not alone in the catching and playing of his fish, but equally in his surroundings and in the pleasant companionship of others who, like himself, are actuated by a true love of the sport. About twelve your oarsman will gently hint that it is about time to land and prepare dinner, and, as Nature abhors a vacuum, you will find yourself seconding his proposal “by a large majority.” Choosing some pretty little nook, he will run the boat in on shore, and, whilst you walk about to stretch your legs, he will start the fire. From under his seat in the boat he will produce a table and chairs, and from the basket (always most liberally supplied by the hotel) he will bring forth table cloths, napkins, plates, knives, forks, spoons, etc. If you are of an active turn of mind you will relieve him of this part of his duty and leave him to attend to the cooking.

If you have never seen one of these men clean and prepare a fish it would be well worth your while to stroll down to the water side and watch the quick, deft manner in which he does it. In a very short space of time your dinner is ready. You find the broiled bass deli-



A TYPICAL ISLAND RESIDENCE.

cious—“done to a turn”—the potatoes are fried brown and crisp, and the French toast—a dish peculiar, I think, among Clayton oarsmen—something to dream of. The broiled chicken, the coffee clear as crystal, the steak or chops—all are cooked to a nicety and perfection unequalled anywhere. In their season corn, green peas, tomatoes and fruit of all kinds are

added to the bill of fare, and I can assure the reader that an island dinner cooked and served by your oarsman is not by any means the least among the many attractions of this beautiful region.

Of the oarsmen of Clayton I can only speak in words of the highest praise. In a long experience I have always found them most willing and ever ready to oblige. Should ill luck be your fate you can rest assured that your disappointment will in no way compare with that experienced by the man who has rowed you from morning till night, and who has used every endeavor in his power to bring you luck. If fish won't bite they won't bite, and that's the long and short of it. I have seen two men weighing, together, considerably over 420 lbs. return after a long day's fishing, during which they had been rowed forty miles under a broiling sun, stand for an hour arguing and grumbling over paying their oarsman for his day's work because they failed to catch a box full of fish. There are hogs all over the world, and now and then one or two visit Clayton. However, the visitors to this part of the St. Lawrence are, as a rule, as whole-souled and generous a lot of fellows as can be met with anywhere under the face of the sun. I have also known men, upon hiring one of these oarsmen for a day's fishing, to be absolutely surprised to find that, in addition to his time, he did not supply a split bamboo rod, reel, silk line, leaders, hooks and bait. The only surprise to me was that they didn't expect to find a quart of Pommery on ice into the bargain.

A word of advice to anglers and sportsmen about to visit Clayton: Don't hamper yourselves with a lot of camping materials, for "Charlie" Ellis can, at short notice, furnish you with everything you require. At his spacious drug store (which, if you stop at the Izaak Walton House, you will see directly opposite) you will find the finest and most complete assortment of fishing tackle to be met with on the St. Lawrence. In fact, a personal acquaintance with Charlie Ellis is essential to the comfort of both the inner and outer man. On the back piazza of his store of an evening can be found congregated a large proportion of the visiting anglers, and it is safe to say

that there are more fish caught on that same little piazza during the summer than exist in the whole length and breadth of the St. Lawrence River.

There is a small white house on the river's brink but a few steps from Ellis's, the path to which is worn deep by the constant traffic that nightly takes place. In this same little house the genial Pat Hays holds the fort, and, when tired of listening to fish yarns on Ellis's piazza, the visitor can hie himself to the Hays' piazza and listen to the Albany contingent trying to out-yarn the New Yorkers. Pat has the record of making the best cocktail to be found in Clayton, but it is not to this that he owes his great popularity. I think it is because, being about the only man in the town who has never been out for a day's fishing (for Pat is a very busy man during the summer months), he's unable to tell any fish yarn himself and therefore, makes a splendid listener.

One of the sights in Clayton is the large boat-building factory of the St. Lawrence Steam Launch, Canoe and Skiff Building Association. It is this company that turns out the beautiful St. Lawrence skiffs that have now a world-wide fame, and countless numbers of which are to be seen daily on the river. For a few years past a strong rivalry has sprung up between the Canadian and American sides as to the sailing qualities of their respective craft. Out of this there has arisen the so-called "sailing skiff," which, apart from the fact that it is built sharp fore and aft, bears no other resemblance to the original St. Lawrence skiff whatever. It is, in fact, nothing more or less than a racing machine with two enormous batwing sails, under the weight of which, without two or three men hanging outboard to windward, it would, under a "very gentle zephyr," lie on its beam ends. Still, with a sufficient number of "lively live" ballast, it is wonderful how well they stand up even under a heavy blow, especially when handled as cleverly as those fast boats, "The St. Lawrence," "The Canadian" and "The Akahe" are. Up to the present time the Canadians hold the championship, but it is to be hoped for the honor of Yankeedom that the season of 1892 will witness a change. One of the fastest boats—"The

Akahe"—though owned in Canada, was built by the St. Lawrence Steam Launch, Skiff and Canoe Building Association from designs furnished by Mr. Gardner, the celebrated naval architect, of Brooklyn, and the designer of several of our fastest yachts. Mr. Jno. Fraser is in charge of the boat-building establishment, and a visit to the factory will amply repay the visitor.

Probably the most successful "spoon bait" in the market is that known as the "Skinner

meetings of great importance have been held between the Fish Commissioners of New York State and Ontario, with a view of procuring uniform legislation covering the fisheries over the waters between the State and the Dominion, and there is every reason to believe that in a short time the Canadian Fish Commissioners will adopt a law that will prohibit the use of all kinds of nets in the Canadian waters of the St. Lawrence River. Of the great and lasting benefit such a law will prove to all lovers of



WAITING FOR DINNER.

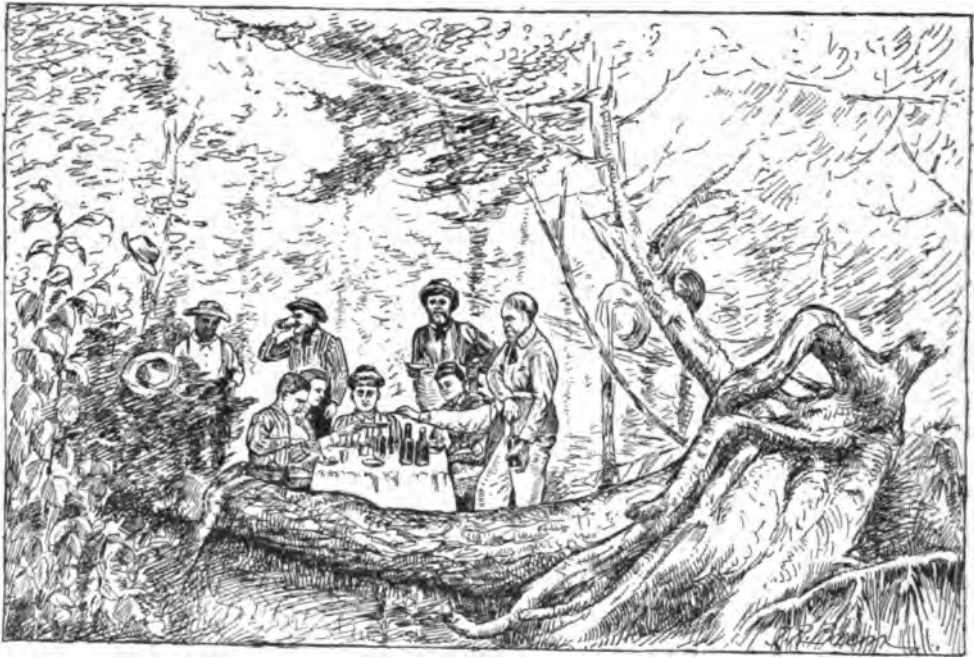
Spoon," manufactured by Mr. Gardiner M. Skinner, whose factory is on James Street. Mr. Skinner is always to be found at his office, and a visit to him will prove of interest, for he makes it a point to be always thoroughly posted in all matters pertaining to fishing. Mr. Skinner is also largely interested in the protection of the St. Lawrence River, and it is through the exertions of himself and his brother members that the fishing of late years has so improved.

It may not be amiss to mention here that within the past three or four months several

angling it is unnecessary to speak. At each of these meetings the Anglers' Association of the St. Lawrence River was represented by Messrs. R. P. Grant, G. M. Skinner and W. H. Thompson, and the thanks of the angling community are due to these gentlemen for their untiring efforts in their behalf.

The engineer of the United States Fish Commission has lately surveyed a location for a hatchery within a few miles of Clayton, and the springs at this point having been tested, there is every reason to believe that in a short time a fish hatchery will be established there, at





AT DINNER.

which it is the intention of the commissioners to make a specialty of hatching the salt-water or true salmon.

There is a capital boat livery kept by Mr. Garn Vincent, where, for a very moderate charge, you can hire a boat by the day or week. I have myself repeatedly taken one of his boats for an hour or so in the afternoon, and within a stone's throw of the town caught four or five good pickerel. Clayton Bay is a favorite place for these fish, and large numbers are daily caught there.

To all those who visit Clayton we earnestly recommend a trip among the Islands. There are two boats that daily make the excursion—"The St. Lawrence" and "The New Island Wanderer." At night these vessels make the same excursion, and with the aid of a powerful electric search light turn night into day. The scene is one at once weird-like and of surpassing beauty. Where, as sometimes happens, the light is thrown upon a pair of unconscious lovers, the effect can better be imagined than described. The search light is no respecter of

persons, and the revelations it makes are sometimes, to say the least, startling.

The most beautiful part of the river is most certainly on the Canadian side, directly opposite Clayton. The islands here are in greater numbers than elsewhere, and so close are they to one another that there scarcely seems room enough for the boat to pass between them. As the river winds along and you thread your way in and out of the numerous islets, lovely vistas rapidly succeed each other. The great wealth of beauty almost overpowers you, for at each fresh turn new and fresh beauties disclose themselves, seen, perhaps, to greater advantage in the soft, mellow light of declining day than in the more glaring light of the gorgeous sunshine. Grand, beautiful, most beautiful St. Lawrence! What words can do justice to thy exquisite loveliness!

Few visitors to the Thousand Islands but what take away with them some memento of their visit. Of course nothing in this connection is, or can be, so appropriate as photographs of the scenes they have visited, and

where they have enjoyed so many hours of pleasure. Mr. D. R. Hardy, of Clayton, has for years made a specialty of taking views on the St. Lawrence, and his pictures have gained world-wide celebrity. Every phase of river life can be found at his studio, and scarcely a point on the river but what has been caught by his camera.

Immediately in front of Clayton, and distant about a quarter of a mile, are two islands, known respectively as "Calumet" and "Governor's." The former is owned by Mr. C. G. Emory, of New York, a gentleman who has spent a large amount of money in beautifying and improving it, until it is now, without doubt, one of the most attractive and beautiful islands on the river. The latter is owned by ex-Lieut.-Governor Alvord, of New York, an old and respected disciple of Izaak Walton. It has not been occupied much of late years, and the genial presence of its owner is missed by many of his old friends.

It is not so many years ago that these two islands (known then as Powder Horn and Shot Bag) were sold for a mere song, somewhere

about five hundred dollars. Now it is safe to say that fifty thousand dollars would, in all probability, be refused for them.

There are a number of attractive points about Clayton, both on the mainland and the islands nearby, admirably adapted for building sites. These are rapidly finding purchasers, some of whom are building, others evidently speculating and holding out for a big rise.

That the "Thousand Islands" is bound to become, in a short time, the great watering place of this continent there can be no doubt. The boom that commenced last year, and which owed its rise in a great measure to the improved railway service, will increase year by year. Clayton, as I have before remarked, by its situation and natural advantages should reap the greatest benefit, but this will depend a great deal upon the energy and public spirit of her citizens.

And now a word of advice to any one whom I may have succeeded in interesting—go and spend a week or two during the summer at Clayton. Try it, and should you come away disappointed, you will be the first person I've



BOATING A BLACK BASS IN CLAYTON WATERS.

met with, in a long knowledge of the place, who left without expressing a determination to return.

I don't think I can do better, in closing this article, than to again quote from the fisherman's friend, old Izaak:

VENATOR (loquitur).—" And, as a pious man advised his friends, that to beget mortifications he should frequent churches, and view monuments and charnel houses, and then and there consider how many dead bodies Time had filled up at the gates of death, so, when I would beget content and increase confidence in the power and wisdom and providence of Almighty

God, I will walk the meadows by some gliding stream, and there contemplate the lilies that have no care, and those—very many—other various little living creatures that are not only created, but fed, man knows not how, by the goodness of the God of Nature; and therefore I will trust in Him. This is my purpose, and so let everything that hath breath praise the Lord, and let the blessing of St. Peter's Master be with mine—"

PISCATOR (loq.).—" And upon all that are lovers of virtue and dare trust in His Providence, and be quiet, *and go a-angling.*"



## A MAD RIDE DOWN A MAD RIVER.

By KIT CLARKE.

They are a coterie of "corkers," that's what they are, these anglers from the wilds of Springfield. And Springfield, too, is one of the gems of the many lovely villages inhaling the balmy atmosphere that sweeps down the stately and beautiful valley of the Connecticut. Yes, they are "corkers," and it is so written up there upon the clouds, where it can't be rubbed out. This proposition can also be depended upon to win in a wager to a standstill. And furthermore, it may be asserted they are uncorkers, too, when this most sublime of

artistic acquirements requires illustration. Springfield, Mass., has done much to win praise and renown, but it raised a dainty and lovely halo of scintillating grandeur all over its fair self when it gathered together the salt and flower of its community and founded the Amabellish Club of anglers. At home they lead the procession every Sunday morning, and they

can at once be distinguished by the well-worn condition of their hymn books, and when "the flowers that bloom in the spring, tra la la," are ripe, the hymn books are reverently laid aside for the fly rod and the brown hackle, and the

big trout of the far north crawl behind sheltering rocks and heave sigh after sigh. They can't help it; they know what's coming, and coming fast.

The club's title is derived from the lake whereon nestles their log settlement, and it is as fair a lake as any woods could possibly surround.

When you

are afloat upon it you can see but three things, water, woods and sky, and the former and the latter are exquisitely clear. I don't know what is hidden beyond the sky, and I don't care very much either, but I can testify to the more important fact that the water conceals multitudes of the wildest sort of big trout—fighters from the spot where piscatorial slugging was dis-



SIX AMABELLISH TROUT—TWENTY-FIVE POUNDS.

covered. I've been there, and I know. It is a pleasant journey of twenty-five miles by woodland path and watery trail from great Lake St. John to Lake Amabellish, and the way lies through an unbroken wilderness. It is a day's journey to make camp, but it don't require as much time to get away.

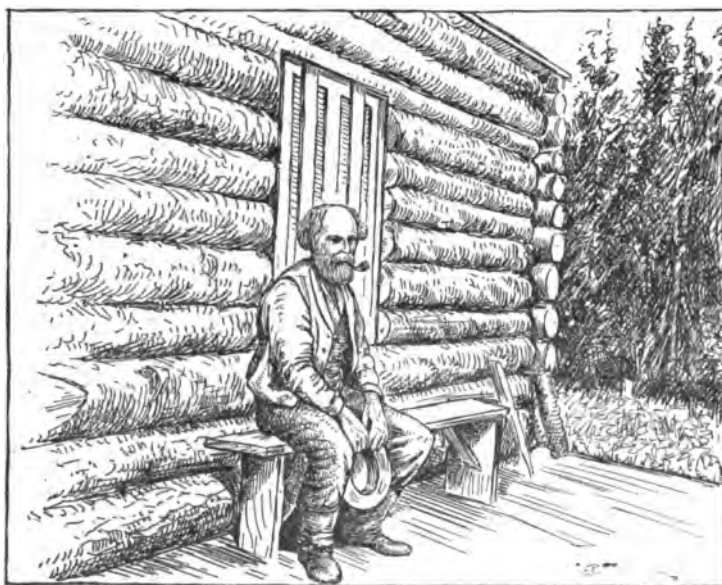
We had spent a week at lovely Lake Amabellish, a week silver-plated with unalloyed joy, and had succeeded in making things warm—not to say extremely red-hot—for numerous big and boisterous trout, as well as a few examples of the *genus homo*—Latin talk for “thorough-breds.” Our week at the lake was a dream of untinted joy, from which we were rudely, even sinfully, awakened by the miserable announcement that on Monday morning

we were to break loose, homeward bound. When Monday came we sallied forth, four of us, with four birch canoes and eight of the ugliest looking muscular Indians the mind could well picture or the heart desire. One of my Indians was a “dandy” from every point of the compass. He understood no word of English, and I knew not a syllable of the awful stuff in which he dealt and facetiously called a language. Our conversation afforded many exhilarating moments, being principally carried on by the wildest gyrations of hands and arms, and usually concluding by my leaning back in the canoe, uttering a subdued groan and

“kicking” internally and infernally. But when two of the Indians met and began to swap stories, ah! then I had lots of fun. You ought to hear them argue copper-colored politics. It's gorgeous to the limit. Yet those hard-looking wretches, by courage and muscle, saved me from a most pronounced ducking in the boiling waters of as turbulent a river as one could wish to look upon, and for which I make open confession of the deepest obligation.

Our party divided, two going by the lower portage, reaching the Metabetchouan River

above the falls, and two by the upper portage, striking the river below the falls. I was one of those who found the river below the falls, and have ever since been mighty glad of it. Just as we reached the river a loud shout advised us that the



MY CANUCK GUIDE.

others had made the descent in safety. Lucky boys! As they paddled ashore and landed we sat upon some convenient, but very hard rocks, and listened to the story of their hair-breadth escapes. They were little short of harrowing, or blood-curdling, or something like that. Then I felt very glad to find that we had avoided all this turmoil by coming over the long carry, but the momentary joy went scotching when Ed. Brewer remarked: “We’ve got the toughest part ahead.” He was right, as I discovered pretty quick. I braced up, drew upon what little courage remained, crawled silently into the canoe, fastened down and prepared myself



for the coming circus. The Indian at the bow gave a push, one gentle, little push, and instantly we were flying down stream amid boiling waters.

There was no need of paddling now, but an abundance of use for the paddle. We were going somewhere, and going in a mighty big hurry, too.

My canoe was at the rear of the procession, for I wanted to see the fun when somebody upset. Alas! I was doomed to disappointment, for every time I peeped over the crest of the roaring white-caps I could see the entire party sailing gallantly and swiftly, if not peacefully, onward. Every time I looked, that man Bryan was

calmly lying back in his canoe, deliberately smoking a pipe, quite as if seated in a cozy leather armchair at the lawyers' club. Here, in the midst of a journey as grotesque and boisterous as a human being could dare, this sybarite seemed to be mocking fate itself. Oh! didn't I wish and hope and pray that he might upset and get an awful soaking, just to bring him down from the tranquil cloud upon which

he seemed to be reposing so peacefully. Suddenly I felt something damp, and upon investigation discovered the cause to be nothing but water. Incidentally we had run upon a rock; the canoe tilted and instantly became half filled with water, in which I sat waist deep. I had to remain sitting, for, if I had

risen, the canoe would have upset. Water, in its place, is a luxury, even a necessity, but here it was neither—not much. Even as it was, I was only saved from a substantial ducking, not to imagine worse, by the Indian at the bow instantly leaping into the water to his shoulders, and, by bracing himself against rocks, holding and



"THE LONE FISHERMAN" OF AMABELLISH.

steadying the frail boat. After a laborious effort we—meaning he—pushed the bow of the canoe around with the current, and, swinging from the rock into clear, but very mad water, we paddled for the earth. At that moment I wanted the earth with an ardent and longing desire beyond the power of description, and when we landed it was the most welcome chunk of mud ever seen. I was soaked to the

waist, but it mattered not, for the mud beneath my feet was just too sweet for anything. The canoe was dragged ashore, the water emptied and the bottom carefully examined. We loaded up, stepped in and once more started wildly down stream, over, under or through the turbulent waters, as the case might happen to be.

A mile below we met the rest of the party, snugly anchored to a fallen tree, and I shouted at the extreme pinnacle of my voice: "Was it Bryan who upset?" "Oh! no," said Damon Coats, "we were just waiting to see if you were all dead or merely drowned." I was a sadly disappointed community, for I had hoped, oh! ever so hard, that gentle Charley Bryan had been dumped into the brink and soaked from centre to circumference. But he wasn't, and my poor heart received one more addition to the many tough thumps it had already undergone. It's a great advantage to possess a heart inured to such frightful disappointments. However, we gathered ourselves together and sailed on over a stretch of smooth water close by the club's winter canoe shed, and the sudden change was not only surprising but most delightful. I congratulated all hands, and was very glad the agony was over.

But it wasn't, not by a jug-full! More of it followed, only worse.

We portaged the falls at the saw-mill, launched and stepped into the canoes for another start, when Brewer remarked: "Here's where that circus begins." It did. Yes, sir, it began right there; and oh! ye howling winds and waters! it was a circus for all it was worth.

It was nip and tuck, and nip had far the best of it. We danced upon crests of seething waves, we shot with marvelous rapidity between huge boulders, to touch which meant a swim for life; we would dive from shore to shore, and anon go careering down the singing current as if bent on destruction. The waters and all else seemed to boil, except Charley Bryan. That man was an iceberg and kept on freezing. I am awful sorry he didn't get spilled, for, if he had, I believe he would have greatly enjoyed it. I know I would. My position was still in the rear, and from my point of vantage I could occasionally brace up and look ahead, only to admire the rare and picturesque

beauty of the parade and the beautiful surroundings. The canoes followed each other in a perfect trail, scarcely five yards apart, the Indians erect at each end of the boats, while our traps and ourselves lay snugly in the centre. All except myself. I was soaking wet, entirely too much so to feel snug. No, sir, there's nothing snug, no matter how hard you try, if you are completely wet from heel to hip. Suppose you try it, just for fun.

The head of each Indian was covered with a fiery red handkerchief, in fair contrast to the black hair and swarthy skin, and, with paddles in hand ready for instant action, they were ever on guard against treacherous eddies and equally treacherous rocks. Danger might be discovered but a few feet ahead, when the paddle instantly plowed into the water, and the obedient canoe shot like an arrow just abreast a huge and vicious rock. The sentinel work of the Indians was wonderful. It was quick as thought. There was not a second for deliberation—to see was to act. At the very moment a rock was discovered the bow Indian's paddle struck the water, the paddle at the stern moving in absolute unison. The canoes swerved from its rapid course and we ran safely by impending danger, only to be on a wide lookout for the next.

And so we danced and dodged down that stately mad river for a dozen turbulent miles, shooting from bank to bank, curving in and out, barely avoiding scores of ripping big rocks, and anon paddling peacefully over still waters, with primitive, wood-crowned hills looking calmly down upon the holiday parade—the quaintest and most fantastical ever seen. Toward noon, at a bend in the river, we landed in safety, and, placing my feet solidly upon shore, I vowed mentally that they could have their gay old river if they wanted it. As for me, the next time I ventured to run down those rapids I'd know it—so would they.

We climbed the hill and found the buckboards waiting our arrival. In a couple of hours we were safely housed at Powers' Inn at St. Louis de Chambord, where a "biled" shirt and collar brought us into sympathy with white folks and civilization and turned our thoughts to pie and other worldly matters.

Six months have slipped away since then, and even now, as I think of it, my blood begins to boil and I want to rise up and give voice to one vast hurrah. I would not have missed the glorious experience for a hundred honest dollars, yet I would not again undertake it for a

thousand. No; nothing short of an angel's tinselled wings, plastered to my back in advance, would offer any temptation to repeat that memorable flight down the wild and weird Metabetchouan River.





## THE WITCHERY OF ANGLING.

BY SAMUEL PARKER.

"Man is a nomad at heart. Every year, when Nature is at her best, the desire inherited from his ancestors through long ages comes back to him and he must take to the woods."

If there be in all the world a special class in whose hearts the above legend finds a responsive echo, it is surely the enthusiastic disciples of Izaak Walton. From the days when the apostles cast their nets in the bosom of the restless Galilee, antiquity has shed its dew upon no nobler art than that of angling—the most refined, the most healthful and the most winsome of any within the range of sylvan diversions. And Nature, indeed, is at her best throughout the seasons usually devoted to this fascinating art, for it begins when the last snow flakes of spring are dissolving on the fragrant buds of pussy-willows, and it closes when the cricket's chirp is expiring amid the frosted autumn herbage. What a pleasing transition from the heat-radiating walls and bustling thunder of the crowded city to the heavy greenery of silent summer woods, with the wind stirring softly through spruce and laurel boughs and the rollicking laugh of the halcyon rising exultingly above the din and tumult of leaping, rock-shagged waters.

The ethical import of angling is, however, its most commendable feature. Surely the heart of that man who is possessed of a lurking passion for immuring himself amid the glories of the primeval wilderness, a transient companion to the loons and whippoorwills, contains no guile. The daylight hymn of forest birds, the silent, pine-shadowed lake steeped in a dream of moonlight and the harmonious rustling of wind through river flags are symbols that tend but to inspire and purify the soul. The very regions visited by the angler in his outings, the close and loving familiarity with Mother Nature, whether it be amid the savage crags and leaping cataracts of the far-away Yellowstone, the shadowy solitudes of the Adirondacks or along the banks of warm Floridian rivers, are of themselves sufficient to render "the gentle art" the best beloved of all out-door recreations. The true angler, whether or not "a

thing of beauty," is a boy forever. The snows of three-score may be upon his head, but the tendrils of perennial youth are ever entwined about his heart. No pine that sings upon the mountain has a form more pliant and elastic than your born angler. The healing exhalations of the woodland gums and balsams, and the grateful tonic imparted by a tightly cough of hemlock boughs, lend a vigor and buoyancy of mind and body that successfully defies the ravages of time. The element of semi-barbarism, the congenial isolation from the clamor of the busy world and the pleasing contact with laughing winds and waters, are potent factors that appeal irresistibly to the hearts of the true disciples of the rod and line, inspiring them with an eager and ardent enthusiasm that is utterly impervious to the encroachment of age.

How quickly the rejuvenating influence of Nature becomes apparent in the physical tennement of the city angler enervated with the worry and perplexities of business. The most fragrant steam that ever escaped from the kitchens of Delmonico would fail to greet his nostrils half so coaxingly as the delicious aroma of the boiling coffee or the savory incense wafted from the frying trout sizzling and sputtering over the glowing embers of the companionable camp fire. Then, too, balmy and refreshing sleep, superinduced by the wholesome fatigue following a day of industrious sport, is a blessing so restful and profound which the uncertain fluctuations of stocks can neither diminish or impair. What an excellent medium for unlocking the springs of social fellowship is the craft of angling. A chance association of total strangers during a brief outing is enough to cement a friendship that will last through life; and the most dignified financial magnate, at a glimpse on the city thoroughfare of the bronzed and rugged guide, will hasten to extend, with every expression of genuine pleasure, a hearty greeting to the trusty woodsman whose services contributed so largely to the success and comfort of the camp in some previous outing.

No more convincing evidence of the veneration in which angling is held by the fraternity could be adduced than is presented by the high state of perfection to which the fond pursuit has been so successfully carried. The novice, in regarding the *modus operandi* employed by accomplished members of the craft, is soon persuaded that before admittance into the charmed circle can be gained *an art must first be mastered*, compared to which "plain fishing" is a mere rudiment. Moreover, the pleasure of beholding a few successful captures by a veteran enthusiast, involving a variety of those skilled manoeuvres which are only attained by one in love with the art, is amply sufficient to so completely inoculate his entire anatomy with the angling fever that a perfect convalescence will never follow.

In due time, when the educating influence of observation and practical experience have implanted within him a degree of proficiency that will permit the landing of his first heavy-weight in true Waltonian style, he will stand ready to swear that the family records make him appear too old by nothing short of a decade. That rare period of eager expectancy, which transpires from the instant his prey is fairly hooked until the final end of the drama, is undiluted rapture itself. The imposing imagery of Nature around him fades into the airy fabric of a dream and the tumultuous thunder of the contiguous cataract is suddenly modulated to the faint inflection of a dying echo. Suspense is ecstasy, patience develops into a charm as each successive dash and plunge for liberty by his plucky quarry is met and countered with the commendable skill of an old-timer. Then, at last, when every artifice born of desperation has proved unavailing, and his gamy prize, after a noble fight for freedom, is drawn baffled, sullen and exhausted within the safe confines of the landing net, enthusiasm has reached its climax. Natural objects now assume their wonted equilibriums, the weird delight of the loons on the outlying lake is construed into a psalm of victory, while the subdued murmur of the cataract mounts again into a triumphant diapason. A generous draught from the comfortable "bait" flagon, in token of self gratula-

tion, completes an episode that is gloriously captivating in its nature.

The craft of angling presents an unequalled basis for a healthy and engaging literature. No other art is so sweetly wedded to Nature and her lore is inexhaustible, her beauties as winsome and soul-appealing as those which long since charmed the genius of Sappho and Theocritus. The clustering blue-bells and the wild brier rose still nod in lonely beauty in the rugged glades, and time works no changes in the music of the river waves. The winds that fan the cheeks of the modern angler are as bland and spicy as those which crooned among the ancient forests beloved of nightingales, where "Father Izaak" fished and dreamed, and embalmed the witchery of the gentle art in the amber of immortal type.

It must indeed be apparent to each and every angler throughout the land that the present interests of the craft absolutely demand an able literature. But aside from the charm imparted by the perusal of the delightful outing sketches by members of the brotherhood, it is a subject of regret that matters of graver import appertaining to the future welfare of the craft require an airing through the medium of a representative journal. Unless prompt and concerted measures be shortly adopted and the same enhanced by the mutual interchanging of ideas as to ways and means to be provided for protection against the willful and ruthless depopulation of the waters, the day is not far distant when one of the noblest and most commendable diversions ever enjoyed by mankind will have become a thing of the past.

Selfishness is an unknown quantity in the composition of the true angler of to-day, and there is not in all America an honest member of the craft who will gainsay the right of every man whatsoever to a *legal* share of the inhabitants of the woods and waters; but the light of past experience reveals to him a violation of the privilege so flagrant and shameful as to point to naught but utter and speedy annihilation. It can scarcely be claimed, however, that tardy legislation is responsible for the fearful inroads of vandalism. Laws sufficiently stringent have been enacted from time to time,

but "laws that threaten and are not enforced become like King Log, whose croaking subjects first feared, then despised him."

The impediments in the way of enforcement by individual members of the craft, chief of which are in many instances a shrinking from the risk of forfeiture of personal interests and a natural antipathy to the bitter animosities apt to be engendered thereby, will ever render the successful prosecution of offenders a dilatory and almost hopeless task. And in view of this fact it would appear that, barring the question of expense, a corps of fearless and efficient wardens, with sworn duties to be discharged without fear or favor, could succeed within a reasonable period in convincing transgressors

that well-defined statute laws were made expressly to be obeyed. Rueful, indeed, would be the day that witnessed the final extinction of this darling art, the subtle witchery of which has so long retained its loving hold on the hearts of men. For generations past statesmen, poets and divines have caught the spirit of its beauty and yielded to its fascinations. Its symbols are the spruce-plumed hills, the painted twilight clouds and the morning glow of sunrise burning redly on the rocks, its music the rapturous anthem of the waterfalls and the soft refrain of the night wind through sleeping woods. It is the art preëminent, an exercise that is beneficial to all and injurious to none.

#### THE HUNTER AND THE ANGLER.

[Paper read by Mr. E. H. Ranney before the annual meeting of the Southern Michigan Fish and Game Protective Association, January 13, 1892.]

Woodcock, quail and partridge. These royal birds make a very pretty subject for a toast at a gathering of sportsmen. They are dear to our hearts and we love to think of them. For the time being we have parted company with them, but the recollection does not grow less vivid or less pleasant, and when we are gathered around the festive board we love to recount our varied experiences and make plans for the future.

The true hunter of the present day is a fine type of man. He is affable, courteous, regardless of the rights of others, charitable in his disposition, and a lover of Nature in her changing moods. He is broad-minded and in full sympathy with all that is true and elevating in the world. There is in the man himself that quality, almost indescribable, but which we recognize when we speak the word "gentleman." There is something about the pastime of hunting that is an education as well as a pleasure. It brings men face to face with Nature, and, in the presence of the Divine spirit which animates all things, it is not easy to be artificial. It broadens our character and teaches us more clearly our relations to our fellow-man. It brings out what is good in us, and tends to make the churl stifle his insolent spirit.

The genuine hunter of to-day is a creation

of evolution. Time has done wonders in developing his true spirit, and also in inventing means whereby he may exercise his natural right. From the time of bows and arrows and rude arms to the accoutrements of the modern hunter is a long way. Likewise many generations had passed ere we had developed a true appreciation of our game birds, or had learned that they were not for wanton spoliation, nor merely to satisfy the appetite, but for the proper indulgence in that wholesome sport which elevates the mind and brings renewed energy to the affairs of this busy world. Along with the development of this true spirit of the hunter, and as an aid to it, has come that grand development of the hunting dog, particularly the setter. You all know what he is to-day—an animal nearly human, or perhaps more than human, in his affection and faithfulness. Add to these qualities a large share of docility, intelligence and sagacity, and you have the highest type of the modern setter, truly a proper friend and companion for the genuine sportsman.

I regret that I cannot say such pleasant things about the fisherman. He has had no development. He is either what he was ages ago or has retrograded. From the beginning of poetry unto the present evening he has been sung in song and story, but we find him to-day

casting his net in the same way as he did in that olden time, that gave birth to such miraculous stories. In still earlier times, among the most primitive people, they caught fish—so 'tis recorded—by bending a pin, fastening it on a line and dropping it in. Well, we find the small boy doing the same thing to-day. The truth is, it requires no skill to fish. Anyone can hold a pole, although there may be various degrees of pole holding. There must be some great reason why there has been no development in the fisherman. I find it to be a *moral reason*, a fatal hindrance to growth. This moral reason is the fisherman's incorrigible habit of *lying*, a habit so long persisted in by his ancestors that it has now, in him, become a well-established vice, incapable of correction. The fisherman does not expect to tell the truth, and we do not *expect* him to. In fact, we *assume* that he will not, so universal and well established has this vice become.

I have in mind a past master in this art of prevarication. In the trout season he never caught less than twenty-five "speckled beauties," all nice ones. During the season his catches seem to be in a sort of geometrical progression, growing larger as the season advances, and his stories have a proper ratio to his catches. One day, for some occult reason, I believed him, and, becoming enthusiastic, purchased an angler's complete outfit—rods, reels, basket, tackle, fly book and all the flies that the art of man ever conceived of. \* \* \* I hied to a famous brook, where, for the sum of one dollar, I secured what they called a "good start." The more I fished the more unprofitable it seemed to become, the more unreal the stories I had heard. So, after a while, I said to myself: "There is no art in this thing; there is no chance for development. Look at that youth over there on that log. His pole may have been cut from the primeval forest. He may be an aborigine, for aught I know, with a pin on the end of his line. The so-called skill of the fisherman is not in what he catches, but in what he makes people *believe* he catches. Perhaps I don't know enough for it; more likely I have too high a regard for the truth ever to become successful. Anyway, I will

throw away my fishing tools and sit down and wait for the hunting season to open."

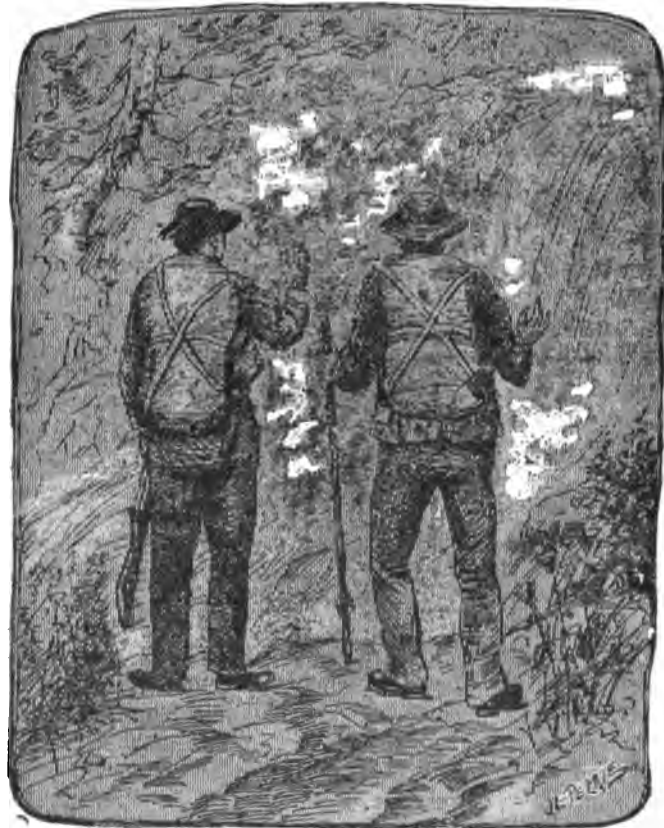
But this is wandering away from the subject of shooting in Southern Michigan. The hunting season just closed has been a memorable one to the hunters of this vicinity, and most glorious times have we had with dog and gun. In thinking of our varied experiences it all seems like the imagery of a dream, but we remember that, at the time, it was quite a reality, full of hard work and also quite expensive. But we do not count the expense; we leave that uninteresting part to the female portion of our families, who have rather practical ideas about such things, but who are quite reconciled to well-cooked game.

Who, that has been afield with dog and gun in our bracing November days, has not received far more than he gave of time and money? Who has not seen his cares and sorrows take flight in that delicious moment when, with senses all attuned, he walks in ahead of his dog to flush the birds to which his dog's keen nose has led him. And then that thrill at the sound of whirring wings, as entrancing to the old hunter as to the novice.

In our vicinity the sportsmen have had all the shooting their hearts could wish for. Everything seems to have favored them. Several open winters multiplied the quail, and our last Legislature, capable of anything, was equal to acknowledging its mistake in forbidding their killing. The partridge nested well and appeared in largely increased numbers, and the weather favored a great flight of woodcock. No bag of birds has been complete without two of these three kinds, and it has been possible, during November, to get all three in one day. Perhaps I ought to say in *one minute*, if we can believe our mighty hunter, whose open countenance over there gives the truth to a story he told me. He said his dog came to a point, and from her preceding actions he suspected something unusual. Nor was he disappointed. But I venture to say that his total experience had not fitted him for what was to follow. As he walked in ahead of his dog, up jumped a quail and darted to the right. He grassed it neatly with his

right barrel. Then a woodcock blew his whistle and scurried in the other direction, only to shorten his journey at the sound of the other barrel. At that very instant a partridge, which had been a quiet looker-on of the proceedings, arose almost from under his feet. He made a pass at it with his gun barrels. The effort was earnest, born of the emergency, as it were. But he is modest enough to say that he did not get the partridge. He doesn't often have occasion to find fault with his schooling, but I believe he still thinks that in some way he ought to have bagged it.

No one can have an experience like this unless game is plenty. What birds we will have next fall is quite uncertain. We are safe from the Legislature for another year, but, for ought we know, Old Boreas may now have our royal birds wrapped in his cold embrace. From the former we must expect many things. He will be an important factor in our hunting. We need him to feed and protect the game. But I will leave this subject to be more fully treated by the gentleman who is to follow.



## LAND-LOCKED SALMON ON THEIR SPAWNING BEDS.

By JOHN MEAD.

"This here will drive the trout all out of the brook into the pond. We never used to get any up the brook arter the first snow come."

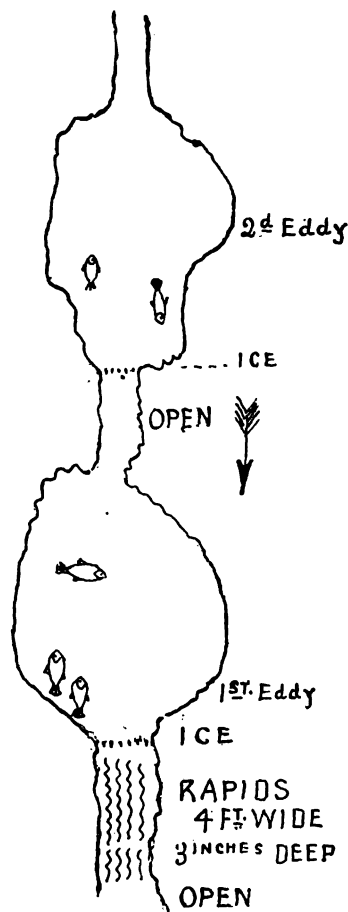
The above bit of fish lore was launched at me, gratuitously, some years ago, by an old-timer who had followed spearing salmon from their spawning beds. To make the meaning clearer, "this here" alluded to an early snow-fall which was prevailing. "Trout" meant land-locked salmon.

The above, like many another wise saying, I have found to be accompanied by exceptions and "a good deal depends." Some years later I followed a brook for perhaps half a mile, when there was nearly a foot of snow on the ground, and counted nineteen salmon as busy about their domestic affairs as they could possibly have been if such a thing as a snowstorm had been left out of the calendar. I am satisfied that the salmon are, by instinct, better weather prophets than some men who make much noise about their predictions.

This fall the water has been unusually low in lake and stream, owing to a protracted draught; but salmon assembled near the mouth of the streams in September, as usual, and the last few days of open season was taken advantage of by local anglers, who pulled five salmon in out of the wet with rod and reel—a new departure here, as it has generally been held as about useless to angle for them at that season. The low water in the brooks, or one brook, prevented the fish from running up stream, so they have amused themselves as best they could, some in gamesome leaps from the water, and others, probably discouraged at the unfriendliness of the elements, played "keep house" on a sandy point of land that extends far into the lake. At this place I found six long salmon at work for all they were worth, planting their eggs in the sand and gravel which they had plowed up to a considerable extent. Later rain fell, and the brook was swollen for a few days and again subsided to the thread of silver that has marked its course so long, but a few patient salmon had profited

by the rise and found their spawning beds far up the stream.

The twenty-ninth day of November, when the lower part of the stream was under an inch of ice, and snow to the depth of from two to three inches lay on the ground, I found myself

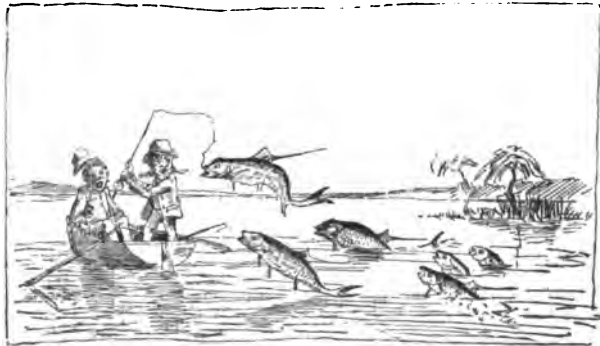


near the brook, three-fourths of a mile from the lake, and thought I would see if any salmon were still on their beds. It was in a piece of woodland where the brook is fed by the springs and the ice at the eddies was not over half an inch in thickness, while the rifts between the

eddies were entirely free of ice, said rifts not being over four feet in width and not exceeding three inches in depth. I came to an eddy where, on a bed of coarse gravel and sand, were a pair of salmon. The female, the longer of the two, I estimated at twelve pounds. The male, being a little over six pounds in weight, was half his length behind his mate and a little to the right, both heading up the stream, and were as motionless as possible for living objects to be. Not a fin or gill seemed to move; their bellies seemed to rest on the sand below, while their dorsal fins were bent to one side by the thin crust of ice above them and their pectoral fins were extended almost at right angles with their bodies. After watching them awhile I passed other rifts, and in an eddy above found another pair, somewhat smaller but more nearly matched, and equally motionless. The female lay in about a foot of water, head up the stream, while the male was near

the opposite bank, headed down the stream. Two days later I visited the place again and found the fish all in the same position, no change, except in the deepest eddy I saw a third salmon lying across the stream. I wondered if the fish were really dead that they should be so motionless, and with a stick gave a sharp rap on the ice above the largest pair, when, like a flash, they darted off, only to make a circle of the eddy and settle down again as motionless as before, not a foot from their old position.

Two days later I visited the place again in company with a neighbor, but the fish had all disappeared; there were no tracks in the snow except those I had made; the ice was unbroken, and the only conclusion I could arrive at was that the salmon had managed to work their way down over the shallow rifts and back into the lake.



## HATCHING AND PLANTING ON THE PACIFIC COAST.\*

Fish life is regarded by many authorities as the most uncertain of all animal life. It is for this reason that our Government, in common with that of several European nations, holds that the propagation of fish under what are known as artificial conditions is a wise plan.

At the very outset the benefits of artificial hatching are seen in the fact that, while according to Seth Green only five per cent. of salmon eggs laid in the natural state are impregnated, and a far less percentage, though wholly unknown, ever become full-grown fish, by the Russian or dry process of handling ninety-eight per cent. of them are impregnated, and of these ninety-seven per cent. are hatched.

The Sisson salmon hatchery, which is operated by the Fish Commissioners of California, is the largest in the world. In it are hatched yearly 2,000,000 to 4,000,000 salmon, beside large numbers of trout, and the capacity of the hatchery is about ten times greater than the output. This season the hatchery has 3,000,000 eggs in the process of incubation, the work all being performed under the superintendency of J. A. Richardson, who is a very busy man just at this time, when the many pink currant globules in his troughs have to be watched with the greatest of care.

These eggs have all come from the United States Fish Hatchery at Hat Creek, where the parent fish are taken in seines or traps and the eggs are secured by the usual process, and where they are impregnated by the male fish, who deposits upon them a fluid known as milt, which causes the eggs to change from white to a light pink. It is a strange thing that Nature has provided the salmon with no muscles to eject the eggs, and that the fish must rub along a hard surface—generally a rock on the river bottom—in order to lay her eggs. By the artificial process two men take hold of the fish with gloved hands and gently squeeze the eggs into a trough. If, after being taken,

the fish is found not to be "ripe" or ready to spawn, she is put into a cage in the water and kept there until the eggs are ready to be deposited.

The average number of eggs taken from a fish this year has been 4,516. From one large salmon 8,000 eggs were taken last month.

As soon as practicable after being taken the eggs are shipped by train to the State hatchery at Sisson. They are packed in frames covered in the bottom with Canton flannel, and are kept at a low temperature *en route*. On arriving at the hatchery the frames are emptied into large asphaltum-lined troughs, each frame being washed clear of its eggs by pouring water on it from a tin dipper. The eggs are kept in little wire cages in the troughs, and all lie on the bottom under three or four inches of water.

A careful inspection is made daily, and any of the eggs which show signs of being addled are removed. The inspector also aims to keep the cages clear of eggs that are not impregnated. The sign of impregnation is a little dark spot on one side of the globule. If this is absent no fish can be hatched from the egg. The business of fish hatching—and particularly that of salmon hatching—is conducive of many ills, and especially of rheumatism. This is because the fish hatcher, if he may be so called, must keep his hands in water that is never of a higher temperature than 48 degrees, and sometimes far below that figure. Gloves cannot be used to advantage, and consequently the fingers must stand the wetting and the stiffening in the cold water.

The limpid fluid that flows from snow-clad Chasta into the Sisson Hatchery looks clear and pure enough for any purpose, and yet, clear and pure as it seems, flowing through the long glistening black troughs, it is found necessary to often scour the troughs out, for the eggs will not hatch unless they are perfectly clean.

When, in a few weeks, the baby fish emerge from their shells, they are put into a large trough, where they remain from two to four

\* We are indebted to Miss Lillie B. Ballard, of Vallejo, Cal., for these practical notes, excerpted from one of the California journals.



months, and then, being considered fit to take care of themselves, are turned into the streams and left to make their own way in the world. Where they are turned into the Sacramento River they, of course, eventually reach the ocean, and this is the disposition generally made of them, it being supposed that sea salmon will not live long in fresh water.

Some very interesting experiments have been made by the Fish Commissioners, however, in keeping salmon in fresh-water ponds. In Sisson's Pond, near the town of Sisson and about half a mile from the State hatchery, there were placed, two years ago, nearly 2,000 young salmon, varying in length from one to one and one-half inches. The greater number of these fish are still in the pond, and are very lively, though they will not be tempted by any kind of bait that an angler may use. They are all small in size, weighing from one to two pounds, while, had they been permitted to go to salt water, they would have weighed by this time from eight to twelve pounds each.

Experiments have been made to salt the water artificially, but these have failed. Mr. Richardson once removed some of the fish and placed them in salt water, with the intention of trying to remove the fungus which adheres to them after remaining a long time in fresh water, and also the worms which fasten upon their gills and suck their blood, these being the chief causes of the retarding of their growth. On putting a fish into a trough of salt water it lashed about and made such wild struggles that it became evident that the sudden change from the fresh water was anything but agreeable. In thirty seconds the fish turned up on its side and floated on the surface, but on being returned to the fresh water of the pond it soon revived and darted away. The same experiment was tried with many of these land-locked sea salmon, with practically the same results in each case. Those remaining a few minutes in the salt water died. It was not believed that the water was too salt, there being no more saline matter in it than in ordinary sea water, but that the change from the fresh water was too sudden. It is believed that the fish play back and forth at the river mouth until they become accustomed to

the salt water before going out to sea. There is no doubt that sea salmon could be made to thrive in fresh water if a properly graded series of salt and fresh water pools were arranged in order that they could occasionally take a dip in the salt fluid and get rid of the parasites which cling to them and retard their growth in the fresh ponds.

There is a great difference of opinion among fish-hatchers as to the length of time which young salmon should be kept before being turned loose in the streams. Some think that if the salmon are turned out at once after being hatched they will the more readily accustom themselves to the habits of their enemies and learn to avoid their attacks, while if they are kept until they are five or six inches long they will fall an easy prey to their enemies, not knowing anything regarding them or how to flee and hide from them. Others claim, however, that the fish stand a much better chance of living and thriving if they are not turned loose until they are seven or eight months old.

The information has recently been received by the Fish Commissioners that the foes of the salmon are on the increase.

A new source of danger to the salmon is the large number of carp that have of late made their homes in the Sacramento, McCloud and Pitt rivers. The Pitt River and Squaw Creek are reported by experts to be swarming with carp, and that they will clear the streams of the spawn and young of salmon any one who knows anything of their habits will at once surmise. The commissioners are greatly alarmed over these reports, for if the carp remain, as there is every reason to expect they will, the work of the great salmon hatchery will be set at naught.

The existence of leather carp in our streams was reported to Marshall McDonald, the United States Fish Commissioner at Washington, recently. He sent back word that he greatly doubted the report. Competent experts here, who know a leather carp when they see one as readily as they know a fishing rod, emphatically declare that they are, indeed, that fish, and they will make such a report to Commissioner McDonald as will convince him that such is the fact.

Deputy Commissioners Thomas Tunstead, John P. Babcock and Filbert Bacigalupi have had much hard work to perform this season, and they are all of the opinion that more deputies are needed for patrol work and inspection. To watch the wily millmen and keep them from dumping sawdust into the streams, to see that no salmon are taken in the close season, and to keep a sharp lookout for traps and seines, requires much vigilance, and the three deputies are often impressed with the fact that California is a very large State.

The deputies recently had a lively skirmish with Chinese fishermen on San Pablo Bay. The Mongols were taking small fish in their nets and were thus violating the law. A boat containing the deputies approached a fleet of junks whose owners had been carrying on this illicit business and undertook their capture. The Chinese paid no attention to the commands of the deputies to run their boats ashore and surrender themselves. Neither did they heed in the slightest degree the fusillade from the rendezvous of the deputies, who first fired above the fishermen's heads, and, finding that ineffective, then aimed at the lower part of the hulls of the first junk encountered. While they presented a calm front to these attacks, the fishermen were, nevertheless, very anxious to prevent a capture, and when the deputies' boat

came near them they tried to push it off with their oars. Deputy Babcock jumped aboard the junk, however, and effected the capture with his finger on the trigger of the revolver, while the other officers went off to take the other boats of the fleet.

Such captures are sometimes made at night. For a deputy to go aboard a craft alone, among a lot of heathens, all of whom may, for all he knows, be well armed, and to be left on the boat in the darkness, the capture being wholly dependent on his nerve and grit, is not the sort of experience to make a man particularly happy. But the life of a deputy fish commissioner is very far from being a bed of roses at the best.

The new trout hatchery in Bear Valley, Marion County, is nearly completed, and will soon be supplied by the commission with 400,000 eggs.

It was expected that 200,000 eggs would be taken at Lake Tahoe this season, but the number only reached 125,000, of which 88,000 have been planted as follows: In Donner Creek, 10,000; Cold Stream, 15,000; Little Truckee River, three and a half miles from Webber Lake, 25,000; Mortis Creek, 6,000; Union Mill Creek, 4,000; Little Truckee River, two miles from Webber Lake, 13,000; Webber Lake, 15,000.

## A GLORIOUS RIVER—THE ST. LAWRENCE.

By T. O. RUSSELL.

The St. Lawrence is certainly the most remarkable river in the world. The Amazon or the Congo may pour a larger volume of water into the ocean; the Mississippi or the Nile may be longer, but none of those mighty streams can compare in scenic beauty with that glorious river that leaps the cataract of Niagara and forms the broad expanse of crystal water gemmed with the Thousand Isles.

The St. Lawrence is a phenomenon among rivers. No other river is fed by such gigantic lakes. No other river is so independent of the elements. It despises alike rain, snow and sunshine. Ice and wind may be said to be the only things that affect its mighty flow. Something almost as phenomenal as the St. Lawrence itself is the fact that there is so little generally known about it. It might be safely affirmed that not one per cent. of the American public are aware of the fact that, among all the great rivers of the world, the St. Lawrence is the only absolutely floodless one. Such, however, is the case. The difference between high and low water in the Ohio at Cincinnati is nearly fifty feet. Even the upper Mississippi, placid and smooth-flowing a stream as it is, sometimes overflows the country for miles on either side of its banks. The turbulent Missouri is also subject to immense rises. Some eight years ago it very nearly drowned out the flourishing city of Council Bluffs, and, had it risen three feet more, the magnificent iron bridge that spans it, and that connects Council Bluffs with Omaha, would have only spanned a mud-hole, and the vagabond river would have carved out a new channel for itself right through the centre of Council Bluffs. Even the mighty Amazon has its rises and falls; if its southern and northern tributaries should happen to be low, or to be high at the same time, it becomes seriously affected. Every river, in fact, on this continent, and all over the world, has great rises and falls brought about by the elements, the St. Lawrence alone excepted.

But the St. Lawrence sometimes causes ter-

rible trouble when the waters get jammed by ice. Only a few years ago it almost drowned out Montreal and did millions of dollars' worth of damage. The flood was not caused by rain, but by an ice gorge and the peculiar character of the river at Montreal. That city is only a mile below the rapids of Lachine, and the ice in spring time is driven down the rapids at the rate of millions of tons per hour. Just below the rapids the large island of St. Helens and the small one called Isle Ronde bar the passage of the ice, and it often gets gorged in the narrow channel between Isle Ronde and the northern shore. The last time Montreal was inundated by the obstructed waters of the St. Lawrence the ice in the narrow channel was estimated to be nearly a hundred feet in thickness. If some means are not adopted for blowing up the ice gorge with dynamite when it suddenly forms, owing to a rapid breaking up of the ice above the Lachine Rapids, Montreal may some day be ruined.

The St. Lawrence despises rain and sunshine. Its greatest variation caused by drought or rain hardly ever exceeds a foot or fourteen inches. The cause of this almost everlasting sameness of volume is easily understood. The St. Lawrence is fed by the mightiest bodies of fresh water on earth. Immense as is the volume of water it pours into the ocean, any one who has traversed all the immense lakes that feed it, and for the surplus waters of which it is the only channel to the sea, wonders that it is not even more gigantic than it is. Not one drop of the waters of the five great lakes finds its way to the ocean save through this gigantic, extraordinary and wondrously beautiful river. No wonder, then, that it should despise the rain and defy the sunshine.

The headwaters of the St. Lawrence take their rise in Minnesota and form what is known as the river St. Louis. It is a small stream, and falls into Lake Superior at Duluth. The St. Lawrence is generally thought to be a comparatively short river. This idea is by no means correct, for, measured from the head-

waters of the St. Louis River to where it mingles with the ocean, the distance will be found to be little short of three thousand miles. The St. Lawrence is in reality longer than the Mississippi proper, not counting the Missouri, and there are probably not more than six rivers in the world that exceed it in length, but none of which, except the Amazon, pours more than half the volume of the St. Lawrence into the ocean. The river St. Marie, that connects Lake Superior with Lake Huron, is where the

propelled craft only can breast it. Here it is called the Detroit River, and, except where it expands into Lake St. Clair, retains its river character until it is lost in Lake Erie. The scenery from Sarnia to Lake Erie, while not striking, is yet very beautiful. The waters of the St. Lawrence are here, as they are everywhere, clear as crystal, pure as Nature could make them, transparent as a mirror.

When the St. Lawrence issues out of Lake Erie its real glories begin. I'll not attempt to



THE ST. LAWRENCE—FROM SMOKE ISLAND, CANADA SIDE.

St. Lawrence next assumes the form of a river. It is here an immense volume of water, nearly a mile wide and wondrously beautiful, here tumbling over rapids and there expanding into crystal lakes. But the picturesqueness of the river St. Marie is sadly marred by a canal and by an immense lock that is said to be the largest in the world. The St. Lawrence next makes its appearance as a river at Sarnia, where it rushes out of Lake Huron—a veritable giant nearly half a mile wide, eighty feet deep, and with such a rapid current that a steam-

describe Niagara. It would be folly in me, for the greatest of those who have attempted it have utterly failed. For nearly ten miles of its course above and below the cataract the St. Lawrence is the glory and the wonder of the world, with its rushing, gleaming, foaming rapids above the falls; with the falls themselves, their immensity, their thunder and their rainbows; and then the seething, swirling river below, confined in the narrow gorge into which it has leaped; shooting up in ragged masses of water twenty feet high from un-

fathomable abysses ; plunging wildly against the rock-barriers out of which its own maddened waves have cut a channel ; careening round and round in the whirlpool ; gradually subsiding, and at last flowing into Lake Ontario without a ripple.

After the glory of Niagara comes the glory of the Thousand Isles. Very different indeed are they from Niagara ; but the Thousand Isles are as unrivalled in their own way as Niagara.

sand—sixteen hundred and ninety-two, according to the most reliable count. Some contain thousands of acres ; some are no bigger than a tea-table. The biggest and the least of them are beautiful. All are covered with shrubs or something green, and all are surrounded by water so clear, so wonderfully pure, as can be found in no river save in the St. Lawrence. This purity of water is one of the great charms of this glorious river. If the Thousand Isles



RUNNING THE RAPIDS.

There is nothing like them in the world, so far as it has been explored. The Thousand Isles want but one thing to make them as nearly heavenly as it would be possible for anything earthly to be, and that is mountain scenery. Of this they have none. The Canadian side of the river is, however, at one place very steep, forming most picturesque cliffs covered with green trees of unnumbered species. But the Isles themselves are the wonders of the scene. There are a great many more than a thou-

were in the Ohio or Missouri they would lose most of their charms, for the waters of those rivers are the color of pea soup during nine months of every year. The same cause that makes the St. Lawrence floodless makes its waters pure ; the great lakes that feed it absorb any sediment washed into their waters ; they are alike its parents and its purifiers.

The sail down the St. Lawrence from Kingston to Montreal is the most extraordinary and exciting river journey in the world. The scen-

ery of the Hudson is certainly finer than that of the St. Lawrence; but the Hudson, glorious as it is, is only an estuary. Its banks are beautiful but its waters are sluggish. If the St. Lawrence had the mountain scenery of the Hudson, its fame would reach the end of the earth. But in sailing down the St. Lawrence from Kingston to Montreal, one's whole attention is taken up with the river itself. There is no time to gaze around, for soon after the boat leaves the mazes of the Thousand Isles the rapids begin. Any sensation more delightful than being carried along at the rate of fifteen miles an hour by rushing waters it would be impossible to imagine. If mountains were piled on mountains on either side, not one in fifty would care to look at them while shooting the Cascade, Long Sault or the Lachine Rapids; and it must be borne in mind that the greater part of the sail from the Thousand Islands to Montreal is through rapids more or less swift. No passenger, not even the most timid, feels any nervousness in shooting through the Cascade or Long Sault Rapids. On approaching Montreal, however, the greatest rapids on the river, those of Lachine, are encountered. To stand on the bank of the river and gaze across more than a mile wide of rushing, roaring waters, leaping and tumbling over the "precipitous, black, jagged rocks," that rise here and there out of the foam, one would imagine that to take a great steamboat drawing six or eight feet of water down such a cataract would be certain destruction both to passengers and craft. But such is the immensity of the volume of water that there is very little danger. No serious accident has ever occurred to a steamboat going down the Lachine Rapids. It must, however, be confessed that many a brave man has turned pale where, in one place, the boat has to take a plunge of six or seven feet perpendicular. In less than ten minutes after the boat takes the big leap she is in the harbor of Montreal and has no more rapids to shoot.

The voyage from Kingston to Montreal is made in a day. The boats leave Kingston early in the morning in order to make the entire trip by daylight; this they always do, although the distance is 198 miles. The boats are not nearly so large as those in the Hudson, but they are as safe and commodious as care and skill could make them. To those who want to take the most beautiful as well as the most curious trip perhaps on this continent, and to any one who wants to experience a new sensation of the most delightful kind, I would say, "Shoot the rapids of the St. Lawrence."

From Montreal to Quebec the St. Lawrence is very unpicturesque; it is too big to be beautiful, and is more like a great arm of the sea than a river. As Quebec is approached the scenery becomes of great interest, especially from a historic point of view. The river narrows to less than a mile in width, and Quebec, the great fortress of not only the St. Lawrence, but of half the continent, is seen towering on an apparently perpendicular rock some hundreds of feet over the narrow water-way it effectually guards. It was near here that the fate of half a continent was decided 131 years ago in the memorable battle of the Plains of Abraham, by which France lost the noblest of all her colonial possessions. Below Quebec the St. Lawrence becomes a sea, and is so wide that it entirely loses its river character. But the lower river possesses one point of wonderful beauty and sublimity, that is, the *embouchure* of the mighty Saguenay. This river joins the St. Lawrence 115 miles below Quebec, and between two giant headlands called Cape Eternity and Cape Trinity. The scenery of the Saguenay is of the grandest and sublimest kind, but could hardly be described in connection with that of the St. Lawrence. The Saguenay, like the mighty stream into which it flows, may be counted among the remarkable rivers of this continent, and is well worthy of a separate article.

## THE BIRDS VICTORIOUS.

[An Incident of Field Sport.]

By M. B. M. TOLAND.

A sportsman once, in search of game,  
While beating through marsh tangle-wood,  
Upon a mother partridge came  
Surrounded by her callow brood,  
All fluttering helplessly.  
By true maternal instinct taught,  
She strove her little ones to hide,  
Then bravely the intruders fought—  
With flushing pinions spreading wide  
She stood defiantly.

In stilted rage she forward came,  
With open beak and ruffled crest ;  
Her mate meanwhile, with cunning aim,  
The spoiler and his dogs to breast  
And lead them all astray—  
Intoned quick measured melody  
Of cooing-silvery cadence clear,  
While fitting through the shrubbery,  
Thus to attract the hunter's ear,  
His threatening hand to stay.

Transfixed in admiration mute,  
The sportsman watched the tiny pair ;  
Nor wished he such brave birds to shoot,  
But let them trill in triumph there  
Their notes of victory.

His setters fenced in covert drear,  
Intent in crouching attitude,  
He called, and they, subdued, drew near,  
With whimpering whine and sullen mood,  
To cross the fern-hedged lea.

God, who hath taught the birds in spring  
To frame and build their downy nest,  
To shield their young 'neath hovering wing,  
Implanted in each parent breast  
Some portion of his love.

Nor leaves them void of heavenly light  
Wherewith to guide their simple life,  
But aids them on their upward flight  
Through changing scenes of peace and strife,  
His watchful care to prove.

## NOTES AND QUERIES.

[Under this Department Heading queries relative to Angling, Ichthyology and Fish Culture will be answered.]

### The Removal of Eugene G. Blackford.

The removal of Blackford from the position of Fish Commissioner of the State of New York has elicited very earnest protests from the press of New York City, which, almost without exception, have attributed the removal to political causes. We happen to be better informed, but do not care to enter into a discussion of the matter, as we have always endeavored to follow the golden rule, "Never strike a man when he is down," albeit Mr. Blackford has always been unfriendly to THE AMERICAN ANGLER and has never failed to seek occasions, or make them, wherein to belittle our work. This antagonism on the part of a State Fish Commissioner to the only angling journal in America, one that has without fear or favor fought for protection unceasingly, is, to say the least, suggestive. For the above reasons it would be somewhat indelicate for us to dwell at length upon our approval of the action of the Governor of the State. This much, however, we may be permitted to offer: For the last decade it has been a surprise to us that a gentleman of ordinary self-respect and sensitive nature could hold the dual position of fish monger and Fish Commissioner—a fish buyer and a fish protector—especially under the protests and inferences, but slightly veiled, that have passed current in the columns of the press of the interior of the State and at the proceedings of the Utica Fish and Game Association.

The *Times-Union*, of Albany, N. Y., presents the reasons of Blackford's removal in a few calm and forcibly-put paragraphs. We quote:

"There are two sides to every question, but only one seems to have been given to the public in the matter of Gov. Hill's removal of Mr. Eugene G. Blackford from the Fisheries Commission. Unfortunately the side already

placed before the public by the Republican press and a few sporting journals is the wrong one.

"The New York State Commission of Fisheries was established as a non-political affair and exclusively in the interest of fish protection and propagation. Mr Blackford, by reason of his knowledge on these subjects, was deemed a most valuable member and therefore was appointed. Mr. Blackford is also the proprietor of a fish stall in the Fulton market, and his doings have caused many rumors to the effect that he was trying to run the Fisheries Commission in the interest of his market, and consequently to his personal profit. There have also been many ugly rumors from the interior of the State, where a great fight has been going on between illegal net fishermen and the game protectors backed by honest sportsmen. It has been said that these netters, doing there work in the darkness of the night, have shipped their unlawful catch to New York—it has been hinted even to Fulton Market—and yet, while Marketman Blackford might ignore such doings, surely Commissioner Blackford ought to have risen in righteous indignation. But he did not. In addition to the various rumors is a well-known fact which has provoked considerable censure from the various papers and magazines devoted to fishing. The frequenters of Fulton Market are well aware that brook trout are found on Mr. Blackford's stands by sunrise the first day of the legal season. To have them on sale in New York City so very early on this opening day would necessitate their being caught the day before, which, of course, is illegal, and yet this has been countenanced and approved of by Mr. Blackford, the marketman, while Mr. Blackford, the Commissioner of Fisheries, was supposed to frown on such proceedings.



"Most kinds of fish are protected during their spawning season, and very rigorous laws are enforced, bringing serious penalties to any one catching such fish during the prescribed months. Yet, by some marvelous means, New York City has been made an exception to this general rule, and within its borders certain fish can be sold out of season, provided they are caught outside of this State. It is to be noted that the exception made would favor Fulton Market, while the rest of the State, according to the law, is not entitled to this privilege. Aside from this, and still more important, is the fact that permitting the sale anywhere in this State of fish caught in other States during a closed season is simply offering a premium to the law-breakers of our sister States to continue their depredations. Mr. Blackford knows that our fisheries are being depleted by illegal means; he is fully aware of the large sum of money annually expended by this State in the endeavor to stop this thievery and replenish our almost barren waters; he is cognizant that other States are doing as much, if not more, for the same purpose; and yet he continually fostered a legal privilege whereby the fisheries of other States are obliged to suffer to the profit of Fulton and other markets.

"These are a few of the considerations that may have prompted Gov. Hill to remove Mr. Blackford, and any one of them, if satisfactorily placed before him, would have been ample cause, in the interest and for the welfare of the Fish Commission, as well as in pursuance of public policy,"

#### On the Making of Rods.

It is now nearly twenty years since I made my first fishing rod, and after it was completed I came to the conclusion that it was cheaper and better to buy just what I wanted. However, just about a year ago I was talking over the matter with my friend, J. R. M., who is a strong advocate of the home-made rod, and I came to the conclusion that, with the hints he gave me and the experience

gained since my last try, it was time to try again.

I was in Philadelphia and called at Shipley's and selected some bethabara wood for the experiment. First I tried a heavy rod for sea fishing, and was satisfied with it. Then I decided to make a rod suitable for black bass—about nine feet long and six ounces weight. This rod I made in two pieces, with lap joint, and it is the best I ever owned; in fact, it is sufficiently good to make me discard the split bamboo which I had thought the king of rods.

Now, if anyone wants to follow my example, the advice I give is: First make up your mind what style of rod you want, then carefully select the wood, getting the straightest grain possible. Plane the sticks down as near the size you want as possible, keeping them perfectly square; then try the spring, and, if necessary, take a little off where the rod seems to be stiff; next plane the corners off until the rod has eight equal sides; plane the corners off again and the rod will be almost round. Having got so far, put the rod together and try how it casts, and, if you see any improvement possible, make it and try again until you are satisfied with your work. Now take a scraper and scrape the rod down smooth and round and sandpaper quickly until the rod gets hot and dead smooth, then rub down with oil. The result will be a finish that will not be easily damaged, and that can be freshened up by simply rubbing with an oily rag.

The only other advice I have to give is to make the handle of cork, which is easily shaped with a sharp knife or old razor, and can be finished in the lathe with a file or rasp and sandpaper.

J. S. C.

Newark, N. J.

A sturgeon was recently caught on the Fraser River, British Columbia, which weighed 856 lbs. The monster measured 12 ft. 6 in. in length and 5 ft. 2 in. in girth.

### Fly Fishing for Trout at Night.

Having had considerable experience in fly fishing for trout at night on the Beaverkill River, and also in Canada, my experience and best success has been on very dark and low-ery nights. The darker the nights the better success, especially through the months of July and August. Most of my night fishing has been on the Beaverkill River, and I have never had any success on moonlight nights. It is often the case on the Beaverkill, while the trout will be feeding in one pool, in the pool above or below not a trout can be seen to break water. I think all brother fishermen will agree with me when I say that the large fish feed at night, leaving their hiding places of the day, either going to the head of the pool or else dropping back to the foot of the pool at the head of the rift in shallow water, and I have always had better success fishing in the latter places.

What the large trout do for food during the moonlight nights—as I suppose they eat just the same—is more than I can tell, unless they feed from the bottom, for I have never seen a trout of any size break water on the Beaverkill River when the moon was up. I do know that at such times they will not raise to a fly, either natural or artificial. Possibly I don't understand fly fishing on moonlight waters. Will some brother angler give me a little light on the subject with his experience, if he has been successful at such times with the fly in taking large trout—from a half pound up? This query does not apply to small trout, for they don't have any fish sense or trout cunning until they reach the half-pound weight. There is a vast difference, according to my ideas, of trout fishing with a fly in the day-time and at night. I will not say what I do in the day time, for that would take too long and is an old subject and about worn out, and will only lay myself open for comments on the night work.

In the first place, I only use one fly—either white moth, Ruebin Wood or white wing coachman—tied on No. 8 hook. Carefully

wade into the middle of the stream within about forty feet of the lower end of the pool; keep perfectly quiet for a few minutes, then for business. I use a nine-foot leader, and let out about fifteen feet of line and fish the stream diagonally, casting first well up and let the line go down past me, then gently guide the fly so as to cover as much water as possible in front of me. I don't draw my fly, but let it come down with the natural speed of the water; by so doing it will naturally sink two or three inches, which, I find, is better at night than on the surface. Don't be afraid; you will not feel his lordship when he strikes, but you will know all about it, and a slight turn of the wrist and the fun for you and the battle for him commences. Now, above all things, keep your head and don't step or flounder around in playing the trout; take plenty of time, and, after he gives up, gently guide him up stream and let him float with the current into the net. By being careful in playing your trout you don't disturb the others, and I have found out by experience that much more care has to be taken at night than by day time, for the old mossbacks are very cunning and will shut off short on their evening meal at the least suspicion of something unnatural going on.

Before closing, being one of many anglers who fish the Beaverkill, all of whom wish to extend their thanks and best wishes to the Editor of the *ANGLER* for his courtesy and kindness in bringing about, through the columns of his valuable journal, the depredations and unlawful use of the waters of the beautiful Beaverkill by the natives who live on and around the vicinity of that river. For it was through the columns of *THE AMERICAN ANGLER*—"Long may it live and prosper"—that Mr. Snyder's (Fish and Game Protector of the Beaverkill section) attention was called to the facts and condition of the Beaverkill. And, thanks to Mr. Snyder's prompt action, the unlawful work was then stopped. But I heard from good authority recently that the saw-mills are up to their old tricks of throwing

the refuse into the stream again. If so, Mr. Snyder can gain the life-long friendship of not only the writer, but of all the fishermen who visit and whip that beautiful and natural trout stream by once more giving it his personal attention and stop the unlawful work for good. Let the good work go on, Mr. Snyder, and show the natives on the Beaver-kill that you mean business and they must live up to the laws. BEAVERKILL.

#### Vise for Amateur Fly Tyers.

I feel highly gratified at the number of letters of inquiry that have been written to *THE AMERICAN ANGLER* during the publication of my four papers on "Fly Tying for Amateurs." It shows that many anglers are trying to help themselves and are willing to attempt the dressing of flies for their own use. It has been asked:

"Where can a vise be bought and what



does it cost?"

In reply to this I say they may be found at the store of any dealer in jewelers' tools and supplies. For the benefit of those near New York City I inform them that vises may be obtained at the jewelers' supply stores in Fulton and John streets; also a good one, with brush attachment, may be bought at Messrs. Patterson Bros., No. 17 Park Row, for seventy-five cents.

Another question was: "How may the vise be set up for work while camping out in the woods?"

The best way to answer this will be to give a description of the one that I use. Instead of getting a regular jewelers' vise, with brush attachment, I bought the smallest hand vise I could get, with a short, straight rod about four inches long for a handle. To this I soldered a piece of brass about half an inch wide, one-eighth inch thick and about six and a half inches long, in the bottom of which

I fastened two flat plugs by boring holes in the larger piece and riveting the others fast. The plugs I filed to fit the look of my fly box. I send a rough drawing of the bar with vise attached, to better convey my meaning.

When in use the bar is locked into the lock of the open box, the vise part extending out over the end of the box. This is an improvement on the bench attachment, as it allows the use of the box either at home or in the woods.

I received this idea from an amateur who lives in a near-by town in New Jersey.

In reading over the *JANUARY ANGLER* I notice that I have inadvertently omitted the description of one of my favorite bass flies. It is:

**THE SPLIT IBIS.**—Tail, a few fibres of white and scarlet feathers; body, silver twist; legs, scarlet hackle; wings, matched scarlet ibis feathers, with a bit of pure white feather be-

tween them. This latter should extend out a little so as to show at the end of the wings.

In this fly the contrast is so great between the scarlet and white that it makes a really beautiful combination. With this fly I think I have caught more bass than with almost any other.

S. K. PUTNAM.

#### The Spawning of Salmon and Sea Trout.

I have read, in your December number, Mr. John Mowat's paper on the question, "Is the salmon an annual or biennial spawner?" with much interest. While having fewer opportunities for obtaining accurate data on the subject, I have long believed as he does, and am warranted in saying that the same individual salmon does not seek the fluvial portions of our rivers every year, to say nothing of spawning.

Anyone familiar with the estuaries of and the bays adjacent to our great rivers—such as the Miramichi, Restigouche, Nepisquit, etc.—

knows that if a fractional number of the salmon that visit them each year, say in June and July, were to ascend above the tide, history would repeat itself, wherein it is related that in the good old days before "the great Miramichi fire" the pioneer settlers used to walk across that river on the backs of the ascending salmon. Nearly a thousand of the *Salmo salar* are now shipped in ice every weekday during the fishing season from Chatham railway station alone, every one of them being taken in the tidal waters below, extending for thirty miles on each side of the Miramichi River and bay. What myriads of them must there be, therefore, visiting the lower bay that escape being captured and return to sea! Those who seek salmon with the fly in their pools up stream for a hundred miles or more from the tide—as I have done for years—know that even a thousand fish make a fine showing in our biggest rivers. It is, therefore, most reasonable to assume that comparatively few of the "spring run" of salmon that teem in our bays ascend the rivers, and if they do not ascend they, of course, do not spawn.

In connection with this subject, my observations of some years—in September, on the Tabusintac—may interest some of your readers. This is not a salmon river, although I have killed a few grilse in it and saw a friend hook and play a salmon there for about ten minutes a few years since. It has, however, few equals in Canada as a sea or salmon trout stream. The Tabusintac Fishing Club has the lease of it from the Crown Land Department of New Brunswick, and their comfortable quarters on its right bank at the mouth of the Eskedelloe—one of its tributaries, fourteen miles above tide and twelve "from the next house"—are well known to some Canadian as well as American anglers. Having fished it for seventeen years, I have a solicitous regard for the river and the fish that frequent it, as well as for the club and its affairs. I made my last trip of the season '91 early in September, as usual, chiefly to direct the

guardian in securing our canoes, house boat and other "plant" for the winter, for we must duly consider the fact that in May and early June, before the fishing season begins, scores of stream drivers move many millions of feet of Tabusintac logs down to the main Miramichi tide water, and they are supposed to be in too great a hurry to consider such trifles as the ownership of any personal property they may come upon and deem useful. I had, in other seasons, observed that the September fly-taking trout were chiefly non-spawners, but on my last visit had striking proof of the fact that sea trout, like *Salmo salar*, are, at least, biennial and not annual spawners. Spawning sea trout are usually very indifferent to the fly in September, while the non-spawners are also slow to rise. On my last visit I had taken nearly a dozen, ranging from one and a half to three pounds, when I observed that I was getting more spawners than usual. I ceased fishing and poled from the pool up to the club house landing, where I opened and examined the fish. I had four females with fairly matured ova as big as AA shot, which separated quite readily on my passing a finger through them as they lay on the canoe cuddy. Two other females had only incipient roes about two and a half inches long and a quarter-inch in diameter. The remainder were fairly ripe milts and other males without any indications whatever, so far as I could find, of even incipient milt. I marked each fish by removing certain spines of the dorsal and caudal fins, so that I could distinguish them, and on returning home had them boiled. The spawners and milts of the immediate season proved inferior for the table, while those having no milt or roes in the incipient stage—evidently next season's spawners—were in prime condition. I considered that lot of fish as positively proving that our sea trout are not annual spawners. Indeed, I think it probable that many of them have even more than one "off season" in that respect.

D. G. SMITH.

### A Unique Fish Exhibition in North Carolina.

The fifth annual fair of the East Carolina Fish, Oyster and Game Association of Newbern will be one of the most unique expositions imaginable, and one that will be amply attractive to naturalists and sportsmen.

It is to be held February 22 to 27, inclusive.

Generous premiums are offered for the best exhibits of each and every species of game, and not a few of the fishes, to be found within the limits of the State; and the enumeration is said to be larger than in any other geographical division of the continent, aggregating no less than sixty-seven species of game alone.

The four annual exhibits which have already been made on these lines have been very creditable and comprehensive. The prizes range from three dollars to fifteen dollars for individual specimens and from thirty to forty dollars for collective exhibits. The oyster display promises, from all antecedents, to be very fine, and will be of great economic interest, as the State of North Carolina produces twenty different kinds of oysters, several of which are equal to the best known anywhere, but does not at present occupy more than two per cent. of its area adapted to the growth and cultivation of this most estimable product.

It ought not be necessary for us to urge upon the readers of THE AMERICAN ANGLER the advantages and pleasure of visiting this show. They ought to go *en masse*. Mr. Charles Hallock has for two successive years expatiated, in his reports of the Newbern Fair for this journal, upon its attractions and merits, and he is at present there assisting to promote its success. There will also be a kennel, horse and poultry exhibit, and a comprehensive display of farm, household and mechanical products. This fair occurs at a season of the year when spring assumes its most charming aspect and the country can be seen to enviable advantage. All go.

### Notes From Maine.

Commissioners are well satisfied with their labors on Crooked River taking land-locked salmon eggs. Seventy fish came into the river one night, and the lock-tender told me in September that he had locked a large number of salmon up the Songo, and I have heard that he told others that more had come up that water than went up Crooked River. I have heard that the boatmen said they had seen thirty or more salmon in a bunch in Cheates River this fall. Some of these say this may be taken with a grain of salt. There is a little opposition at the lock to the work on Crooked River, and a fish headed up the Songo would not be turned into the other channel intentionally. Warden Floyd, of Edes Falls, had Nathan Paul up for casting a spear at a salmon in Crooked River, and Paul paid something like fifty dollars for his fun. I believe it is the second time Paul has been pulled in for a like offence. Bass, white perch and pickerel have afforded good fishing in Long Lake. Three speckled trout, from one to two pounds, have been seen from the lake off Rogers Brook, which is closed against all fishing.

J. MEAD.

No. Bridgton, Me.

### Practical Notes From Abroad.

In the matter of sliding hooks on spoon tackle a correspondent writes to the English *Fishing Gazette*:

"It is pretty evident that your correspondent, Mr. J. W. King, must have had but a very limited experience with sliding on spinning flights or snap tackle; otherwise he must, before now, have found out the way in which to adjust the hook. Usually the tackle is sent out without any turn around the shank. If J. W. K. will take the tackle and pull the gimp out quite loosely *between the two eyes of sliding hook*, he can then give it as many turns around the shank as he chooses, each time passing around the loop by which the tackle is attached to trace; or if he does not happen to

pass around the loop, then push the loop through the last turn and draw tightly. If the tackle (snap) *be attached* to trace, then the gimp is passed around the lower triangle as many times as required. To adjust the tackle, nothing is easier: push the gimp in at either eye of sliding hook, when it immediately becomes quite loose and the hook can be shifted as required."

The use of bran in fishing creels is recommended by another correspondent of the same journal:

"An angler can, by carrying a little bran with him, keep his fish quite fresh in appearance in any creel by simply sprinkling enough of it to adhere all over them when first caught. It is surprising how fresh a trout looks when the bran is washed off even after *three or four days*, and it is therefore one of the very best ways of packing fish to send a distance."

#### Notes from Lake Worth, Fla.

November 27 Sanford L. Cluett, of Troy, N. Y., and myself, using handlines and mullet bait, fishing in the ocean about half a mile off shore, took twelve groupers of 25½, 11½, 12, 12, 10½, 6½, 4½, 4, 4, 4, 3 and 2½ lbs. each; five red snappers of 14½, 14, 11, 7, 6 lbs.; one amberfish of 35½ lbs. and a Jewfish of 79 lbs., making a total of nineteen fish, weighing 266½ lbs.

The catch was made in three hours, with smooth sea and a light northeast wind.

On November 28 Messrs. J. B. Clow, Geo. B. Swift and myself took, in the same manner and under the same conditions, four amberfish of 39½, 32, 30½ and 25 lbs. each; three red snappers of 19½, 12 and 11½ lbs., and one Jewfish of 180 lbs. I also hooked and played to gaff a hammer-headed shark, possibly twelve feet in length.

On December 5 Sanford Cluett came to the front with an African pompano of 23 lbs., the largest on the Lake Worth records.

Yesterday (December 22) I tried the Jewfish again and landed one of 171 lbs., and a

snapper of 24 lbs. I caught nothing else of importance, unless I count a hammer-head shark of eighteen feet that gave me a good pull and a cut finger.

Bluefish are being caught in large numbers by trolling and chumming in the lakes, but so far I have heard of none over nine and a half pounds. I never bother with such small game when I can catch Jewfish of ten times their size.

W. F. Mc.

*Palm Beach, Fla.*

#### The Channel Bass of Florida.

In this mid-winter of the Northern Coast  
I love to dream of semi-tropic clime.  
Here rivers pulseless rest in death-like sleep,  
And gleams the icicle and frosty time:  
Here naked woods are smother'd in the snow,  
The pastures buried in a gelid sheet,  
An icy shroud envelopes the broad lake,  
And Winter reigns in every lone retreat.  
Then 'tis a joy to muse on foreign realm,  
Where lofty woodlands line each placid stream,  
Where sweet magnolias and the orange grove  
Bend with their fruits, with perfum'd blossoms gleam.

There where o'er marsh, or by the shelly shore,  
The wild fowl skim on balanc'd wings the air,  
The fowler reaps the harvest of the game,  
The anglers keen the abundant pastimes share.  
In sandy coves engirt with flowery blooms,  
By trickling rivulets fring'd with marshy grass,  
Thro' surge and river glides the tarpon grand,  
And mid the mangrove isles swim channel bass.  
In spring-time swarm their numbers in the bay,  
Flashing at inlets, in the flow of tide,  
O'er the sand-flats and by the shores they range,  
Seeking their food as dashing they glide,  
Pursuing mullet in their greedy race,  
And, shark-like, ravaging the salty flood—  
Remorseless tyrants of the watery space.

In the warm season of the summer-time  
The surf is reddened by their gleaming sides.  
They glitter where the frothy billow breaks,  
They flash above the ripples of the tides.  
Fearless and frantic, round the fisher's boat  
They plunge, they spring to seize the tempting bait,  
Fight to the death, surrender to their fate!

More fierce in fight, more valiant in career,  
A fish impetuous is the tarpon grand,  
Monarch of all the rangers of the Gulf,  
Matchless in vigor by the salty strand!  
The channel bass, so famed for strength and speed,  
May ill compare with tarpon's savage might.  
The bluefish and the shark ne'er rival him in fight,  
Yet the skilled angler, with his tackle fine,  
Triumphant meets this tiger of the brine.

*Spring, L. I.*

ISAAC McLELLAN.

### The Making of Fish Hooks.

A queer collection of fish hooks excited a Washington *Star* writer's attention at the National Museum, 3,000 years ago being almost the latest period to which any of them dated back. For it would seem that the fish hook is a very old invention indeed. From a description which accompanied them it appears that many curious things were used as material for the hooks of early days. Some were even made of human bone, and this practice has been common up to within a century of the present time among the natives of the Society Islands, in the South Pacific.

Deer horns, flint, boars' tusks and bone of all sorts were made to serve this purpose by anglers of the neolithic period. It is not difficult to figure to one's self a cave gentleman in that ancient epoch sitting upon a newly formed deposit of quaternary rock in the middle of a glacier stream, and watching for a small float of a tree bark to give the expected indications of a bite by disappearing under the surface of the water. Such floats were undoubtedly used in those times, and stone sinkers, too, plenty of the latter having been found in the strata of earth, stone and shell deposit which embalms the remains of these vanished peoples.

The development of the barb was naturally a slow process, and nobody knows just when it was adopted. Certainly, however, it was a familiar device many centuries before the beginning of the bronze age, which period had its commencement about 3,000 years ago. This form of metal first came into use along the European coast of the Mediterranean—the alloy of which it was ordinarily composed being nine parts of copper to one of tin—and the mechanical improvements accompanying its introduction were in no point more surprising than as applied to fish hooks.

How far this is true may be judged from the fact that the fish hook of thirty centuries back was precisely similar in every respect to the fish hook of to-day, save only in the metal employed, which then was bronze and now

is steel. The very curves of the "Limerick" and "Shaughnessy" hooks, so popular with modern anglers, are found in these antique specimens. The tops of the shanks, too, are bent over into little loops, as nowadays, to tie the lines by. Most surprising of all such relics found, perhaps, are strips of burnished copper shaped like fishes, which were utilized by fishermen of the bronze age as artificial bait to attract the prey with its metallic sheen.

Until the age of bronze arrived, shells of various sorts furnished material for a large percentage of the hooks made, and hard wood, sharpened, was much employed. Thorns were also made to serve a like purpose, and until quite recently the Mohaves of Arizona have similarly used cactus spines, bent into proper shape and tempered by the application of alternate heat and moisture until strong. The early lake dwellers in this country wrapped their hooks with charms manufactured from various animal substances, the baits being put on outside. They imagined that the fish were attracted by these fetiches. The only gold fish hooks ever found were of the virgin metal, and were taken from a grave in New Grenada.

### HOW MODERN FISH HOOKS ARE MADE.

The making of fish hooks is not merely a trade in itself; anglers consider that it is, properly speaking, an art. In England the best ones are made, because all manufactures of steel excel in that country, where every product of that material, from razors down, is beyond compare. Hooks of the first quality are made from the very best cast-steel wire, which is turned out in coils at Sheffield and Birmingham.

The first process is to cut the wire into lengths suitable for the hooks to be made. Ordinary sizes are chopped off by the quantity with a machine, but the big ones for use in catching sharks and other big sea fishes are cut singly with a hammer and chisel. After the lengths of wire have been cut off another operator takes them and turns up the barbs by cutting into the yet soft metal with a knife

upon an anvil. Next the straight pieces are taken in hand by a workman who files the points to keenness. Where the best hooks are concerned each one is manipulated separately, being held in pincers while the necessary sharpness is given by a few dexterous strokes. Common hooks are pointed with one file, but the finer sorts require the application of two or three different degrees of coarseness.

The points once made, another workman takes the bits of wire in hand, bending them round in a curved piece of steel, so that each one shall have the characteristic flexure which makes the type of hook desired. The process of forming the instrument is now completed, save for the shank, which may either be a loop at the end of the wire or a flattening at the extremity. The flattening is done by one sharp blow with a hammer upon an anvil.

The final process is the tempering of the hooks to harden them, and when all these operations have been completed they are scoured in revolving barrels driven by steam power and filled with water and soft soap. When the friction has worn them bright they are dried in another revolving barrel containing sawdust.

In old times fishermen made their own hooks, using very much the same methods as are now practiced on a large scale in the factories. It is a very curious fact that during the bronze age, when metals had first come into use, fish hooks had the same forms as now, even to the shanks and curves. The famous "Limerick" and "Shaughnessy" bends are absolute reproductions of those preferred in that early epoch.

#### Angling in Ponds.

Mr. John Burgess writes from Malvern Wells, England:

At the present time, when many owners of ponds, lakes and streams are about to stock their waters with trout and other species of fish, it is necessary that they select a variety

that will not only thrive, but also afford gratification and pleasure by rising to the fly. It is a mistake to turn wild fish into ponds, and too much care cannot be exercised in choosing a variety that has been, as it were, naturalized from birth to land locked conditions. Trout undoubtedly thrive in ponds that have a current of water passing through them and also possess an ample supply of food. Natural food is, of course, the best, but, if there is an insufficiency of it, supplement it with artificial supplies. I am acquainted with certain owners of ponds who derive a considerable amount of sport from them, inasmuch as they are not above throwing a fly now and then for the sake of keeping their hand in. What a boon it would be to hundreds of humble anglers dwelling in our great cities if permission were given them to fish in some of the lakes and ponds situated in the parks and open spaces contiguous to their homes. The opportunity is not afforded to all to go forth to the haunts of the more fortunate classes of piscatorials and ply their rods the livelong day beside the rippling stream. No; their existence is one of incessant toil, and the time at their disposal for gratifying their piscatorial longings is far too short to enable them to proceed any distance from home, even if they possessed the means. To fish in a metropolitan lake is preferable to total abstention, and, therefore, such anglers would be grateful to take their pastime therein, and willing to pay for the privilege. Of course, such waters would have to be stocked, but a fund to defray the expenses of so doing would be created by the fees paid by anglers.

Reverting to the subject of private ponds, I would mention that there are many in this country, now barren, that are capable of supporting trout life and affording sport. If unsuitable for trout, they are often adapted for coarse fish, so that no water, unless absolutely impure, need be without some species of fish. In view of the decreasing population of trout in open waters, angling in enclosed waters is not to be despised, and those who stock them



with judgment will reap a good crop of fish in due course. Trout should be turned in during the yearling stage of their existence, and they will grow to their surroundings and soon become thoroughly domesticated in their habitats.

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#### The Tarpon Record Broken.

Just as we go to press we learn that Mr. Charles A. Dean, of Boston, caught in Charlotte Harbor, Punta Rossa, on rod and reel, a tarpon weighing 196½ lbs. This exceeds the former record by about twelve pounds.

#### A Genuine Thad: Norris Rod.

FOR SALE.—It is a fly rod, made of greenheart, with tip of split bamboo; in excellent order and has the stamp of Norris on the handle. Address, "Owner," care of AMERICAN ANGLER.

---

THE COLUMBIA DAILY CALENDAR.—An old friend in a new dress, and an article that has come to be one of the indispensables of an editor's desk, comes to hand in the Columbia Daily Calendar for 1892. The calendar is in the form of a pad containing 367 leaves, each 5½x2½ inches, and each slip bears a short paragraph pertaining to cycling or some kindred subject, and at the bottom of each leaf is a blank for memoranda. The stand is an entirely new departure, being made of sheet metal finished in ivory black, and is very compact. This is the seventh issue of this now well-known calendar, yet all the matter is fresh and new.

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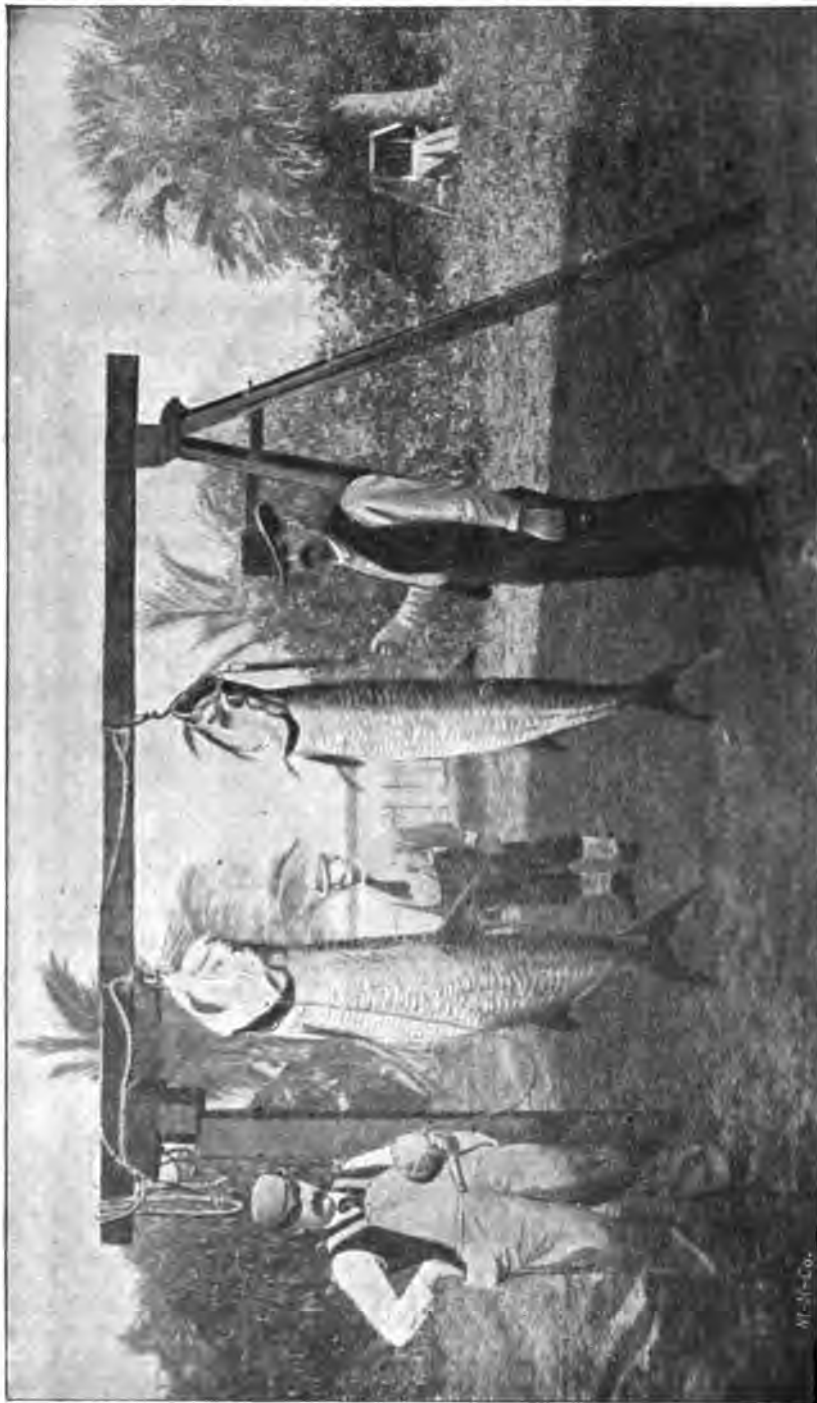
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Trains leave foot of Chambers Street as follows: 7.40, 8.40 and 9.40 A. M. Returning, arrive in New York at 1.00, 4.00, 6.00, 8.00, 9.15 and 11.15 P. M.

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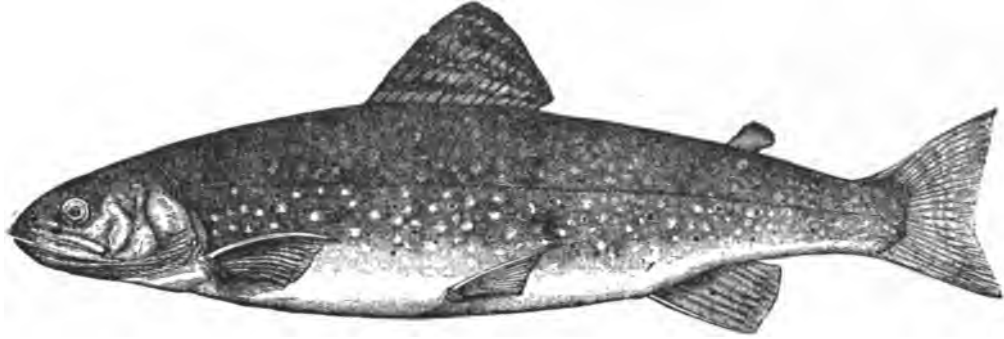
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### LEECH COMBINATION.

This is the perfection of a Combination Rod. It will make either a 9½-foot fly-rod or an 8-foot bass rod, suitable for either trolling or bait casting. Made as follows: A reversible hand grasp, so that when used with fly-rod you have the reel seat below the hand, making a fly-rod of three pieces and a short grasp. The bass trolling or casting rod is made with an extra short grasp that fits into the head of reel seat of reversible butt, making a double grasp rod. This part of rod is of two pieces, a tip and second joint, and the two short grasps, which combined make the double grasp. Price in split bamboo, \$30; bethabara, \$20; greenheart, \$15; degama, \$12; lancewood, \$10. This includes cork grasp and German silver mountings.

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This beautiful rod is only seven feet in length and weighs three ounces. It is designed for small stream work where open and brush fishing alternates. It will cast forty to fifty feet with ease, and, owing to its length, has sufficient backbone to kill a three-pound trout without strain or damage. For brush fishing it is "just the thing." This rod is finished with care and its construction will compare favorably with the best split bamboo rods in the market.

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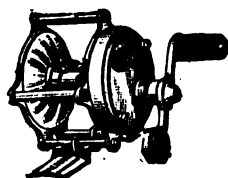
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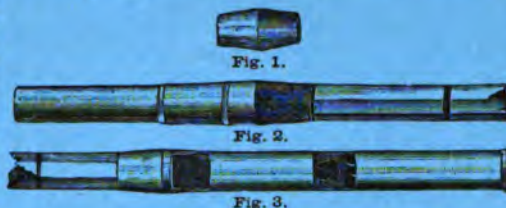
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FIGURE 1.—Shows Celluloid reinforcement for both male and female Ferrule.

FIGURE 2.—Shows male Ferrule, with reinforcement of Celluloid underneath German Silver Ferrule.

FIGURE 3.—Shows sectional view of the waterproof joint from shoulder up.



rule from cutting into the enamel of the Bamboo at point of contact, at both male and female joints. The German Silver Ferrule also being made on a true taper (see cut) enables the reinforcement or Zylonite Ferrule to be stretched over the Bamboo without cutting away any of the enamel, which has to be done in the use of any Ferrule, except where it is reinforced as in the KOSMIC.

### WHAT THE ANGLERS SAY.

THE PARADISE FISH AND FEATHER CLUB, LAC DEL GRANDES ISLES, CANADA, July 14, 1890.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—I have handled some pretty good rods, but none has pleased me better than the five-ounce "Kosmic" which you built for me last May. I labored with it daily during the month of June, and lifted many heavy trout up to four pounds each, and then, in order to test its murderous qualities, tried bottom fishing with a four-ounce live perch for bait. The little perch went into the jaws of a four-pound trout, and in due time the trout went into my boat. This, you will concede, is a hard test for so light a tool, but it stood it like an old timer, and is worth all the praise I can give it. I like a rod with backbone—one that is tough and stiff in the middle joint; for after all a rod's work is done between the two ferrules, and in this most valuable essential my "Kosmic" is perfection. Besides, the artistic mounting and beauty of finish displayed in the rod won admiration from many accomplished anglers. The man who tries to make a better rod will have to hustle.

Yours respectfully

RIT CLARKE.

CLEVELAND, OHIO, May 16, 1891.

A. G. Spalding & Bros., Chicago, Ill.—MY DEAR SIRS:—I know it will please you to hear a report on the action of the 4½-ounce "Kosmic" trout fly-rod you sent me—because it is emphatically a good report. With a half dozen rods of my own, it is the best one I ever had in my hand, and during a visit to Castalia this week, all the club members who saw it spoke highly of its admirable qualities. The keeper, also, who is a beautiful fly caster, said it was "the best little rod, and the biggest little rod," he ever saw. They know a good one when they see it at Castalia, too.

Yours sincerely,

CHAS. W. BURROWS,

President the Burrows Brothers Company.

CLAYTON, N. Y., August 16, 1891.

MY DEAR SIRS:—I never had a rod that hooked a fish as easily, and held it as well as my first "Kosmic." And in this respect the new rod works as well as the old, and I have already done with it some very good fishing.

Sincerely yours,

F. LIVINGSTON REES.

BOCA, CALIFORNIA, March 15, 1891.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—I take pleasure in acknowledging the receipt of the little five-ounce "Kosmic" fly-rod which you have built for me. It is a "dandy," the best I have ever possessed. Its excellence, casting qualities, artistic mounting and beauty of finish displayed in the rod, commend it to all anglers. It is the most perfect rod I ever used, but I need not go into particulars, for, as a whole, it fills all my desires for a rod, and seems as near perfect as man can make it. It is a beauty as well as a perfect piece of workmanship. I shall now feel good all over when I go to rig my cast of flies. I congratulate you on your success in getting up so handsome and so excellent a rod.

Yours very truly,

GEORGE L. BRADFORD.

NEW YORK, November 15, 1890.

Messrs. A. G. Spalding & Bros.—GENTLEMEN:—The working of the six-ounce "Kosmic" rod, which I obtained from you, exceeded my most sanguine expectations. I took with it three black bass in succession, weighing respectively two and a half, two and three pounds. I was fly casting from shore, and, not having landing net with me, I had to drag the fish up a shelving rock; but the little rod stood the strain admirably. I have caught many bass with the same rod since, but none as heavy as those three. Notwithstanding the hard usage to which I have subjected it, its "line" is perfect and its "backbone" unimpaired. I can, and shall, cheerfully recommend the "Kosmic" rod.

Yours very truly,

SAM SUM.

29 BROADWAY, NEW YORK, September 14, 1891.

Messrs. A. G. Spalding & Bros.—MY DEAR SIRS:—Referring to your inquiry about the Kosmic rod I purchased from you, I beg to say that I have found it absolutely perfect. I never could believe that so light a rod could be built so stiff and strong. I hooked six mascalonge on it and landed five out of the six; the other one was lost in gaffing alongside the boat. The heaviest fish I had on was about forty-two pounds, and the one I lost was about the same size, probably the mate of the first one, as it was struck only a few yards away. I can conscientiously say that the Kosmic is the most satisfactory rod I ever fished with.

Yours very truly,

J. CHURCHWARD.

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THE

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OF FISH, FISHING, & FISH CULTURE

WM. C. HARRIS, Editor, 110 Duane St., N. Y.

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Mr. William C. Harris, editor of *THE AMERICAN ANGLER*, has been engaged for the past nine years in the collection of material for an extended work on the fishes of North America their habits, habitat and methods of luring them. It is titled

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This book will be issued on heavy plate paper in monthly parts (size of paper, 12x17 inches), each number containing two portraits of fishes, colored as in life, and printed on heavy card board. The portraits will average one foot in length. The work will consist of at least forty parts, containing portraits of eighty or more fishes that are caught on hook and line in the fresh and salt waters of the United States and British possessions.

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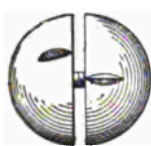
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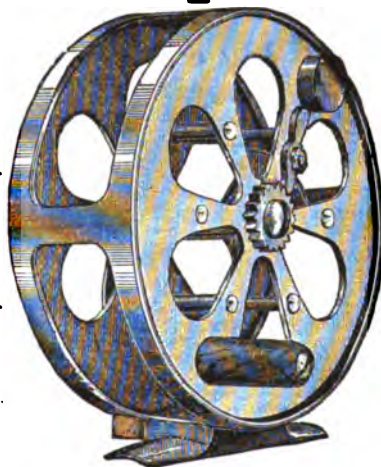
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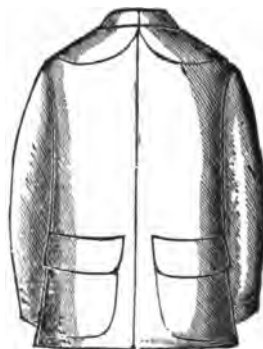


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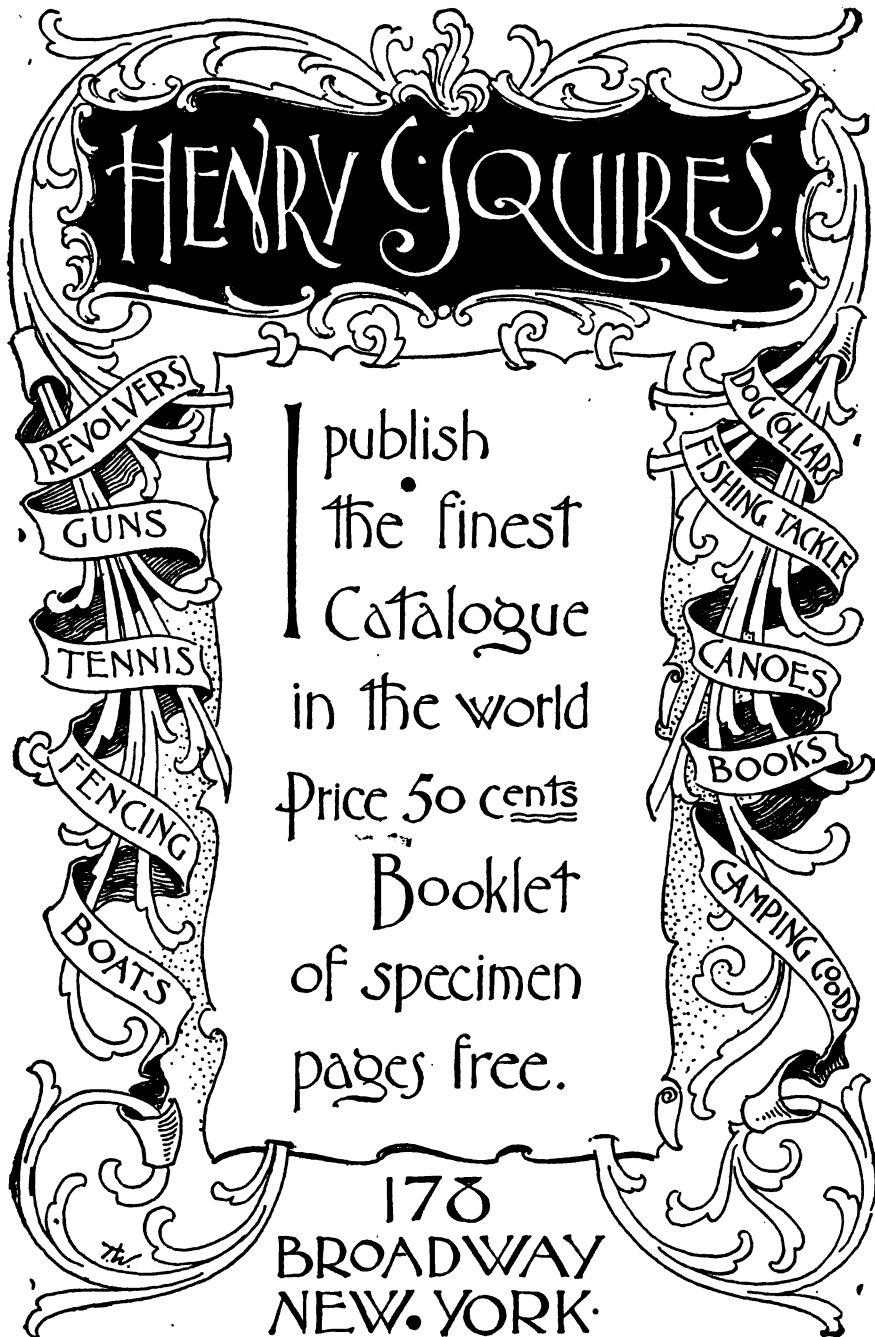
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# THE AMERICAN ANGLER.

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APRIL, 1892.

NO. 7

## DEEP SEA FISHING IN THE TROPICS.

BY NICOLAS PIKE.

During my long residence in the island of Mauritius, as American Consul, I took the greatest interest in the various methods of fishing practised there. As some of them are so different from those in use here, it may be of interest to the lovers of "rod and reel" to know how the "gentle craft" is carried on the other side of the world.

Fish has always in this island formed a large proportion of the food of the varied inhabitants. At least two-thirds are Catholics, and what with Lent, Fridays and the innumerable fast days, fish is a most important item to them. The numerous Indians, servants and coolies use fish largely, as it is about the only animal food their religion allows, and the ubiquitous Chinamen are as fond of a good fish as they are of pork and chickens.

All the early voyagers to the Isle de France, as Mauritius was then called, remarked the great beauty and variety of the fish of the Indian Ocean. Commerson, Sonnerat, Cossigny, Dumeril, Lesson, Quoy and Gaimard, Desjardins, Lienard and a host of others collected fish here.\*

There are several ways of catching the finny tribes in use there, and I became acquainted with many of the old Creole fishermen, and often accompanied them in their boats in search of rare specimens, many of which are

forbidden to be brought into the market, on account of their poisonous qualities.

Seine fishing is greatly used, but only under the strictest rules; among others, every fisherman must have a license, and his seine's meshes of fifteen lines, and bow nets and caziers, two square inches, and seine fishing is prohibited altogether in spawning time of the principal kinds used as food.

The harbor of Port Louis swarms with edible fish, and the men in several boats often stretch their seines across the openings in the reefs, while others advance from outside in pirogues, beating the sides and frightening the fish into the nets. Frequently they spread a seine across Grand River mouth where it empties itself into the sea, and the men wade off and drive in the fish. The Indians also go in on their own hook in a most primitive but successful manner. The women take a sheet and the men their long waist cloths, and dip them in the muddy waters near the shores of the harbor, and by dexterous manipulation, known only to the initiated, catch great numbers of *cabots* (a mud Goby), crabs and a very small shrimp. Many fish are caught in casiers or bamboo baskets with a hole in the top. This is an uncertain mode of fishing, as but too often one of the monster voracious sea eels gets in and devours the contents of the casier, and the fisherman is often bitten severely by the savage brute before it is killed.

Superior to all other methods, for excitement

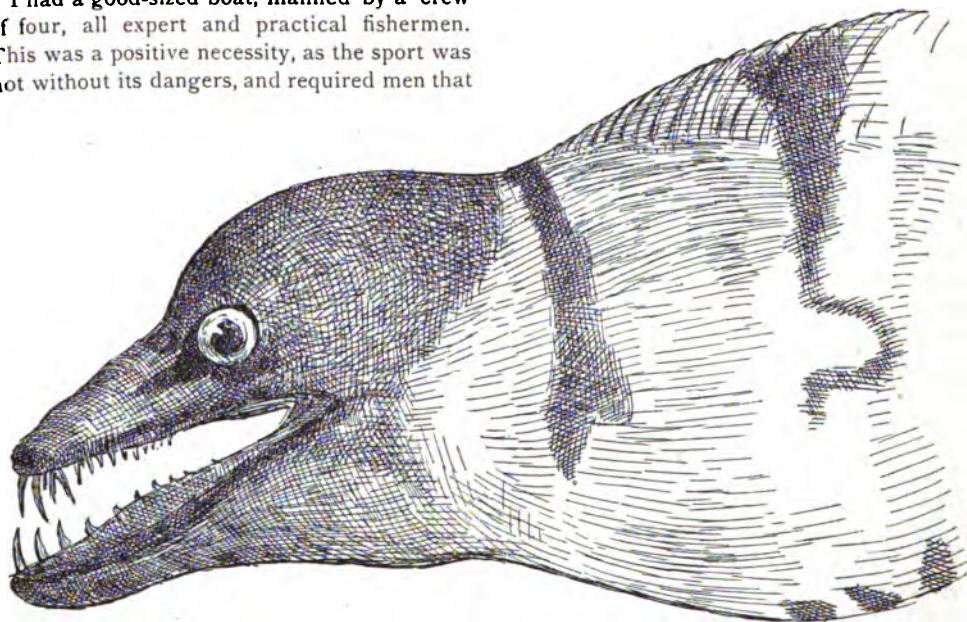
\* Many hundreds can be seen at the Museum of Comparative Zoology, Cambridge, Mass., collected by the writer, among which were two new genera and twenty-seven new species.

and pleasure, is the deep sea fishing here. I had joined the fishermen in several of these night excursions, and my accounts so excited some of my friends, all disciples of Izaak Walton, that a party was made up for a night on the Indian Ocean that surrounds the island so far-famed as the home of Paul and Virginia. Not only my accounts, but the curious fish I brought home after a night's sport, had fully roused their curiosity, and all were eager to go and do likewise.

I had a good-sized boat, manned by a crew of four, all expert and practical fishermen. This was a positive necessity, as the sport was not without its dangers, and required men that

not breeze enough for our sails, but with our oars we soon reached the locality fixed on as most suitable for our sport. We threw over our drag, it being too deep for an anchor, and then set to work to get our lines in readiness.

The lines are generally arranged with five hooks, and above these one or two stones are attached. The twine used for making fast the stones must be strong enough to hold them while carrying down the line, when it would



MURÆNA PIKEI—A SEA EEL.

well understood their business. Lines of all kinds were prepared, as well as hooks, two or three whalesmen's spades, harpoons, etc., etc., all useful in such an excursion, in case of need. About two bushels of stones, nearly a pound in weight, were put on board, their use I will explain later, and provender was not forgotten.

We left the land about sundown, and it was dark when we had passed the outer reefs that nearly surround Mauritius. As we launched out into the broad bosom of the ocean the moon rose in all her splendor, and scarcely a ripple moved the bright waters. There was

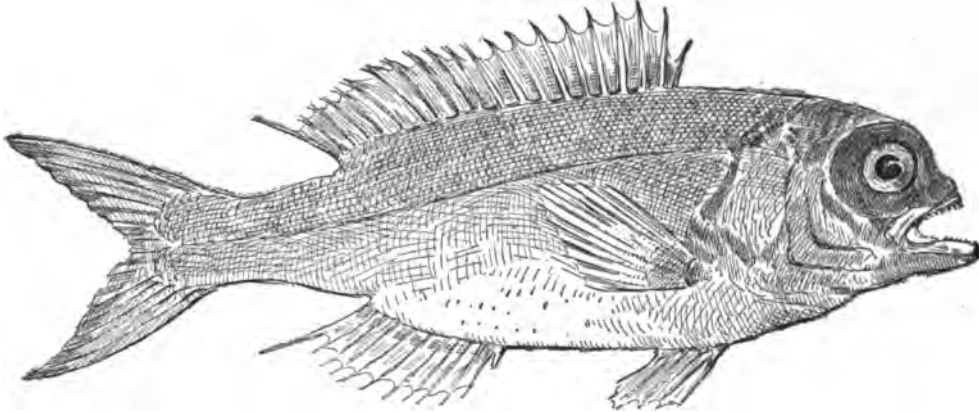
break as we drew it in, and detach the stone. We used sardines, which are very abundant in these waters, for bait. Our preparations were nearly completed, and we were about to cast over our lines, when my attention was attracted to a dark object on our port bow, and I called the attention of one of the fishermen to it.

The man quietly spoke to one of his mates, and they drew in a small boat at our stern, and told me to enter it with spade and spear, and in a few minutes the men, a friend and myself, were ready for action. By stealthily sculling we soon gained on the object, which



proved to be a very large turtle, making for the shore. Giving orders to bring me alongside as quickly as possible, I was soon able to strike it

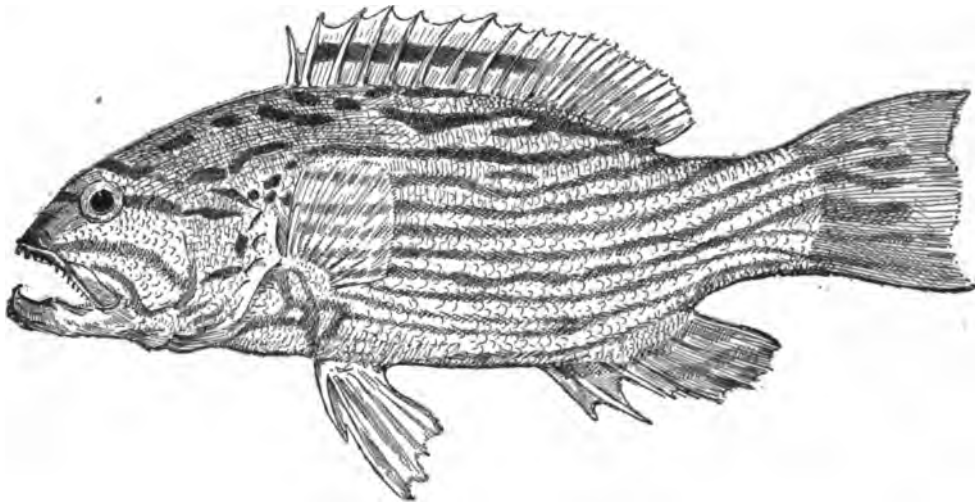
he finds he cannot go down he becomes frightened and bewildered, and becomes an easy prey. We had some sport with this fellow, as



*SPAROPERCA PIKEI*—A SEA BASS.

a fair, penetrating blow before it had time to dive into deep water. I had killed turtles before on the east coast of Africa, and I knew that by making a hole in its carapace I could secure him afterwards. By striking a turtle

he showed fight when brought alongside, although he was well secured by a line round his flippers. It was all we in the small boat and the rest in the large one could do to get him into the boat, as he weighed nearly 300 lbs.



*PLECTROPOMA LINEATUM*—A SEA BASS.

while on the surface, and making a hole in his shell, the air rushes in and completely prevents him diving, and he is easily captured. When

This was a good beginning of our sport, but as soon as things quietened down the regular business of the night began.

The water where we were located was very deep, averaging from fifty to one hundred fathoms, and it takes some time for the sinkers to reach the bottom. Care must be taken as the line runs out to prevent it from getting entangled. Of course it is not easy to know when the bait is taken, but after being down fifteen to twenty minutes it is safe to begin to draw in. It is good exercise, and pretty hard work my friends found it, pulling in lines from such a depth, especially when loaded with five fair-sized fish, as they often were. However, all stood to their lines bravely.

Once in a while, instead of fish, up came a monster eel, when all hands were on the alert. Even the most stoical old fisherman grows excited when one of these brutes makes its appearance. Had they been alone they would not have let it enter the boat, but, as I had bargained for all curious fish caught, they were obliged to bring in the eels, though they killed them first, or we should have had pretty lively times, as they are active as snakes and fierce as tigers. No idea can be formed of the ferocity of these eels by those who have never witnessed their capture. The sketch is from life of the head of a young "Amandia," as the fishermen call it. When sent to Cambridge it was named by Dr. Steindachner *Murana pikei*.

Curious to say, the colors of many of the fish brought from great depths are of the most vivid hues, and very many are new to science. Crimson, pinks and yellows predominate, and the eyes are generally very large. With the exception of the eels, all are quite dead by the time they reach the surface, and the eyes protrude from the head. The air, swimming bladder or sound in some of these fish is very large. This curious hydrostatic apparatus enables the fish to remain on the surface or sink to any depth at will, and it is often the cause of its death. When suddenly brought up from a great depth, the air being no longer compressed by the weight of the column of water above, bursts the swimming bladder, and sometimes distends the abdomen to such an extent that it pushes the stomach and œsophagus into the fish's mouth and chokes it, and distends the eyes to bursting.

It can safely be said that the deep sea fish of the Indian Ocean can vie with the bright-plumaged birds of South America. After laboring with our deep sea lines—I say laboring advisedly, for, let any man unused to it try hauling in these fathoms of line, and he will find it fine exercise for every muscle, and the chances are he will not feel very supple the next day. Well, after laboring for some hours, we rested a while, but the fishermen went on just the same. We were talking over our last catch, which had been exceptionally fine, and spinning fish yarns, when we were startled by a cry from our old skipper on the bow of the boat:

"Look out there, boys! Be quick with the irons; he'll be alongside in a minute."

And, true enough, there was one of the man-eating sharks (*carcharias*) coming up leisurely to us. We had been lounging and having a smoke leaning against the sides of the boat, but in an instant we stood in the centre of it, for we knew too well the character of the approaching shark, or possibly sharks, for this ocean swarms with them. A harpoon was quickly rigged, attached to many fathoms of whale line.

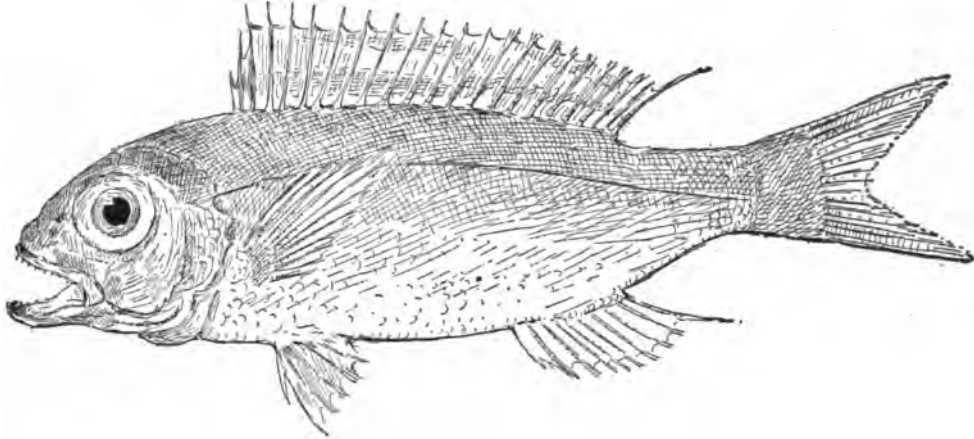
Uncle Jebo, as our skipper was called, took a position on the poop deck, and threw the harpoon with such skill and accuracy that he struck the shark just behind the head. Then began such a splashing and commotion of the briny deep that our boat rolled most uncomfortably. After gyrating round a few minutes in a fearful rage, the shark dived down, taking fathoms of line with him. Slack-line was soon observed, and we began hauling and coiling it in the bottom of the boat. The shark soon appeared on the surface, swimming within twenty feet of us, as if meditating an attack.

"Look out, boys!" rang out again. "Look out! he means mischief; he may try to board us. Look out sharply!"

No sooner were the words shouted than, with lightning speed, the brute came directly for us. I was not so much surprised as my friends were, for I was familiar with the habits of these terrors of the sea, having killed many. The shark struck the bow squarely, at the same

time giving a splash with his tail that sent a torrent of water over us. For some moments the sport was exciting. He darted round and

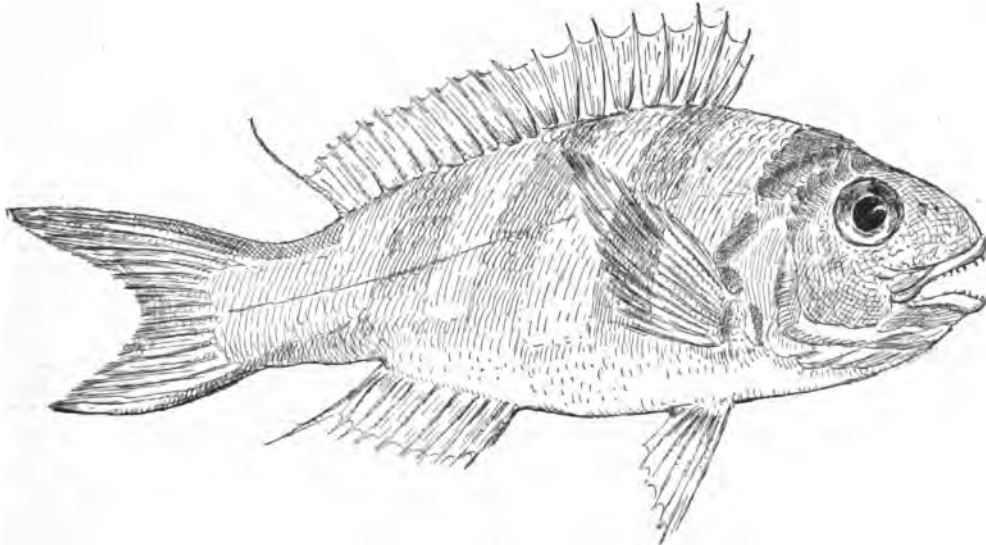
with a whaleman's spade, severing the spinal column, and quickly ended his career. Another trophy to our night's sport!



*SPAROPERCA ELEGANS*—A SEA BASS.

under the boat, until, in his mad attempts to escape, he fairly exhausted himself. I concluded we had had fun enough over him, and,

The men all rejoiced when they saw one of their worst enemies dead, as they have reason to fear sharks, especially when in their small



*SPAROPERCA ZONATA*—A SEA BASS.

fearing lest some of us might get overboard, I concluded to kill him. Taking a stand in the bow, I watched my chance, and struck him

pirogues. Then, again, it was money in their pockets, as the liver of the brute yielded them two barrels of excellent oil, which was their

perquisite. We fished on and off till daylight, and then headed the boat for the island. We had taken during the night over two hundred fish, many fit for the market, and quite a number of rare and some new ones fell to my share, some of them, when examined by the late Prof. Louis Agassiz, calling forth continued exclamations of delight from him.

Among others we caught ten or twelve of the beautiful *Vivanos* (*Sparoperca zonatagen*, nov. Steind). The colors are intensely vivid, of the richest shades of pinks and yellows with white. They are sometimes caught eighteen inches long, but are not esteemed as an edible fish. I also caught another fish of the same new genus, *Sparoperca pikei*, Steind., with its olive coat and yellow fins; the rare *Serranus melantama*, with its purple sides and yellow spots; the equally rare *Gramnistopus striatulus*, with its shiny brown skin all flecked with white, and the exquisite *Plectropoma lineatus*, yellow with royal purple lines, also a new species. Many kinds of *Serranus* were taken, as there are innumerable species of this genus in these waters, many of them being the best fish for eating, and others are of the most deadly poisonous nature. All go by the name of *Vieilles*. One of the very best, the *Vieilles rouge*, is very common in the shallow waters of the inner reefs, and the color is a vivid red, something like our snapper. We took several from the very deep water, but the color was totally different. The head and shoulders were brilliant orange, throat, dorsal and caudal fins pale yellow, and belly white. It also grows to nearly double the size of the red ones. There were gorgeous colored fish of the genera *Myripristis* and *Holocentrum*, with their innumerable spines all over the head, and the formidable anal spines. Then there were the

little gems, the *Anthias borbonius*, all pink and gold. But it is useless adding a mere list of names; the fish must be seen to be appreciated.

As we were slowly making our way to the shore, we caught some of the curious *Aiguille* or needle-fish, so called from the long, thin snout. It is bright metallic blue on the back and the rest white. They are lively on the hook, but easily taken. This fish is the *Belone melanostigma*, C. and V., a gar-fish, and very peculiar in its habits, and quite different from any other fish I know. When about to deposit its spawn it selects some floating object, to which it attaches the end of the long membrane in which the ova are enveloped, and then winds it off just as a person winds a line round a nucleus of paper or any other substance. I have seen several bodies thus coated, some of which had a length of fifteen or sixteen feet of a kind of network, in which the eggs, many thousands in number, about the sixteenth of an inch in diameter, were interspersed. I have never seen the operation, but have been told by several intelligent fishermen that it is effected by the fish leaping over and diving under the body on which it deposits its spawn, and I can see no other way by which it could be accomplished. A common glass bottle was found which was completely covered by this singular coating.

As we neared the island a gentle breeze sprang up, which filled our sails, and we glided swiftly toward the harbor. As we crossed the deep channel at its entrance, we nearly lost our shark, which we had towed behind the boat attached by a strong rope. The carcass was attacked by one of its own species, but we drove it off and managed to get ours home, only minus the tail.

## ROD MAKING FOR AMATEURS.

By FITZ JAMES FITCH.

A rod to the angler is what the gun is to the huntsman, or the axe to the woodsman. The angler *can* fish with a "pole" cut from the alders fringing the stream; the huntsman *can* shoot with the bow and flint-headed arrow used by the American aborigines, and the woodsman *can* cut with the axe of the "stone age;" but the success of the user of these primitive implements, and the pleasure experienced in the use thereof, will be in a degree as far from perfection as the rude tools employed.

Who invented, or first used, the fishing rod is a problem not yet solved. If the inventor's name had been handed down to posterity he would have been sainted centuries ago by the unanimous vote of an eminently respectable and cultivated minority of men who have treasured and wielded this pleasure-giving sceptre.

While fishing and fishers are often mentioned in both sacred and profane history of ancient days, there is little, if anything, to be found relating to rods. Even Izaak Walton writes but little concerning them. In his fifth day discourse with Venator he gives instructions for painting the rods:

"Which must be in oil; you must first make a size with glue and water boiled together until the glue be dissolved and the size of a lye color; then strike your size upon the wood with a bristle, or a brush, or pencil, whilst it is hot. That being quite dry, take white lead, and a little red lead, and a little coal black, so much as altogether will make an ash color; grind these together with linseed oil; let it be thick, and lay it thin upon the rod with brush or pencil; this will do for any color to be upon the wood."

In the fourth day talk, in which he treats of fly fishing, he says:

"First, let your rod be light and very gentle; I take the best to be in two 'pieces.'"

While I am unable to give an authority for it, I have no doubt Walton meant by the words "very gentle," pliant or limber. The first

master of the art thus, in one line, gives us the three most important qualities of a fly rod.

First, it should be light, that no fatigue, soreness or lameness of the hand, arm or shoulder follow its use.

Second, it should be "gentle" or pliable, as there is less danger of breaking the tackle in striking the fish, and much less danger of losing it when hooked, by the parting of the line, breaking of the hook or the "tearing out" of the same.

Third, it is best that the rod be in two pieces, better that it be in one, when this is practicable.

It is with those living on or near trout streams; but not so with those who must travel long distances by rail, stage coach or buckboard to find waters suited to their purposes. Walton was not, when viewed by the light of the present day, an adept in fly fishing, as has been said by those who lived much nearer his time than we do; but he probably was up with the age in which he lived; although, with characteristic modesty, in all the editions of the "Complete Angler"—the first of which was published in 1653—he gives the credit of what he has written upon fly fishing to another.

In the fifth and last edition published in his lifetime he says:

"I shall give some other directions for fly fishing such as are given by Mr. Thomas Barker, a gentleman that hath spent much time in fishing, but I shall do it with a little variation."

Charles Colton, in part II. of the "Complete Angler," writes:

"For the length of your rod you are always to be governed by the width of the river you shall choose to angle at; and for a trout river, one of five or six yards long is commonly enough; and longer, though never so neatly and artificially made, it ought not to be, if you intend to fish at ease; and if otherwise, where lies the sport?"

An answer to this question is found in the

late Canon Kingsley's "Chalk Streams of England," one of the articles in his "New Miscellanies," but first published in *Fraser's Magazine* for September, 1856. He recommends fishing up stream under some circumstances, and also:

"That the angler discarding his light London rod, which is, in three cases out of four, as weak and 'floppy' in the middle as a wagon whip, and get to himself a stiff and powerful rod, strong enough to spin a minnow, whereby he will obtain, after some weeks of aching muscles, two good things—a forearm fit for a sculptor's model, and a trout hooked and killed instead of pricked and lost."

As "some weeks of aching muscles" are not desirable, and sculptors' models are not much in demand, "in this land of the free and home of the brave," I am inclined to think Colton's question, "where is the sport?" is not satisfactorily answered by the late revered Canon.

Before me lies a book, the title page of which reads as follows:

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The most complete and practical ever written.

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EVERY INSTRUCTION NECESSARY

TO MAKE ALL WHO MAY FEEL DISPOSED TO TRY THEIR SKILL

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WITH A MINUTE DESCRIPTION OF

TACKLE, BAITS, TIMES, SEASONS,

FISH AND THE METHODS OF COOKING THEM,

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THE PLACES FOR ANGLING WITHIN TWENTY MILES OF LONDON.

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TO WHICH IS ADDED A GRAPHIC AND LAUGHABLE STORY, ENTITLED

"THE THREE JOLLY ANGLERS,"

BY THE REV. JAMES MARTIN.

LONDON:

G. COX, 18 KING STREET, COVENT GARDEN.

Sold by all Booksellers  
and Fishing Tackle Makers.

1854.

In it the author gives this "minute description:"

"The rod for fly fishing must be really good, or you never can throw a fly properly with it. You may purchase one for seven or eight shillings, but it cannot be made on the proper principle for that sum. It should not be, in

our opinion, too long. We have always used a short one ourselves, and we know several anglers who give a preference to one of that order. When they are too long you have not as much command over your fly, and the labor, also, is greater."

This is only a little less explicit than the "old woman's" receipt for a certain decoction. "You take a pound, a pound and a half or two pounds of sugar, and put into a pint, a pint and a half or two pints of water, and an ounce of Epsom or Glauber's salts—I forget which—and boil it for one hour or two hours, and then add something else—I forget what—and take one, two or three tea or table spoonfuls two or three times a day—I forget most all about it, but if you make it right and take it right it'll do you good."

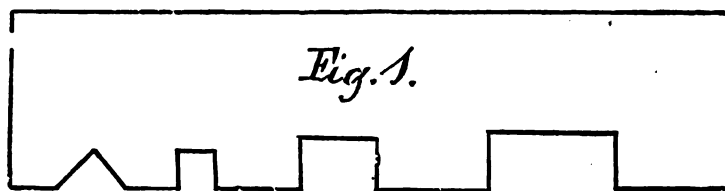
I have quoted sufficiently from the earlier writers to show that a fly rod, perfect, or even good, is comparatively a recent invention. My first fly rod, the work of a well-known maker, who kept a tackle shop in New York thirty-five years ago, was twelve feet long and weighed about as many ounces. I well remember the pleasure I experienced in its use, and the pride and exultation with which I exhibited it to my less favored brother anglers. I also well remember the blistered and stiffened hand, the aching arm and lame shoulder, with me throughout the bout, forgotten only when occupied in filling, as I did almost daily, an eighteen-pound creel with *saving* trout.

But it is of the rod of the present, and of amateur rod making, that I am asked to write. The amateur rod makers, throughout the length and breadth of our land, equal, and probably surpass in numbers, the professionals. The degree of proficiency they have attained, the material used, the style of the rod and the manner of constructing it, differ as widely as do the amateurs in their judgment of what a rod should be when completed. It cannot be expected that I can describe the various methods of manufacture adopted by these amateurs. In the performance of the duty which Brother Harris has assigned to me, I can only describe how I make rods, and the kind of rods I make.

My first attempts at rod making were without the aid of an instructor, or of a pattern rod to work by. Familiarity with the use of tools from early boyhood, a knowledge of the various hard woods, such as hickory, hornbeam and white ash, a degree of mechanical ingenuity that enabled me to adapt means for the attainment of the end, and lastly, a knowledge of the kind of rod that I thought would be best, was the capital upon which I began business.

The first fly rod made by me, over twenty-eight years ago, was twelve feet long and weighed eight ounces, and was the most pleasant rod to fish with that I had then seen; and, I will add, would compare favorably in

inches wide and one inch in thickness. Upon one side of this four grooves are cut, of width, depth and shape shown in Fig. 1. This represents a section or one end of the planing board. In each of the two wider grooves, and two or three inches from the end, is inserted a wood screw, three-fourths of an inch in length, the head of which is a little below the surface of the board. These serve as bench hooks. Above the bench is a rack with perforated shelves, and hooks, upon which are to be found the tools generally used by carpenters. Those convenient, if not necessary, for the rod maker are as follows: Drawing knife, jack plane, small smoothing plane, rip saw, cross cut saw,



action, weight and throwing qualities, with a vast majority of rods made from wood that I have seen since. In the method of rod making, I profited largely in later years by reading and treasuring up in memory the instructions given by Thaddeus Norris in the first edition of "The American Angler's Book." I would commend that excellent work to all would-be amateur rod makers and all anglers. It is practical, clear and sound.

#### HOW I MAKE RODS.

*First*, of the tools used. I have a work bench six feet long by sixteen inches in width, the top of which is of hard maple two inches in thickness. Near the left hand end of the table is inserted a bench hook, by which a board or stick is held in place while planing it. At the same end is attached a cabinet maker's wooden vise; the bench is secured to the wall and floor of the room in which it is placed, so that it is firm. I have also a board used in holding in place a section of the rod while it is being planed. This is five feet long, four

ribbed back saw (all with fine teeth adapted to sawing hard woods), two or three wood files of various sizes (one at least should be half round, and another large, at least one foot in length and one and a quarter or half inches wide), steel scraper, vise pliers, small round pliers, graduated calipers, brace and bits of various sizes (one of which should be of the diameter of seven-sixteenths of an inch), a pair, at least, of small wooden hand screws, a small steel mandrel and small steel files. A sportsman's knife, with small implements therein, should be found on one of the shelves, and carried by the angler on all excursions and walks.

*Second*, of the woods used. For handles, or grip-pieces, any wood may be used. I prefer a light wood, butternut, cedar or sumac. The last is best, as its color and grain are very beautiful. Sections of the wood, two or two and a half inches in diameter, are best suited for the purpose. The bark should not be removed until the stick is thoroughly seasoned, as it tends to prevent checking. For the rod proper, Bethabara, greenheart, lancewood and



shad-blow\* (*Amelanchier canadensis*) may be used for the entire rod; hickory, ironwood (*hornbeam*) and white ash may be used for the butt and second joints, and either of the woods first named for the tips. I have also used cedar for the two first joints, barberry for the entire rod; the latter is an excellent wood. I have a decided preference for shad-blow over any and all woods that I have used, as it combines strength, elasticity and lightness. The wood, of whatever kind indigenous in the Northern States, should be second growth and grown by itself, exposed to sun and wind; that growing in a dense wood or forest is not fit for use. Wood of rapid growth is the strongest. In hickory, ash and shad-blow, the concentric circles seen in the end of the stick, or log, marking each year's growth, should be as far apart as possible. This is one of the most reliable indications of strong wood.

The best hickory I have ever seen or used had a growth of one-fourth of an inch all around in each year. As the seam indicating each year's growth is spongy and soft, and in some woods, notably ash, quite thick, the fewer of them found in a stick to be used in a rod, the better. Woods of the same kind, growing, apparently, under the same circumstances, differ greatly in quality and characteristics. Why this is, it is impossible to tell; yet the experience, I believe, of all workers in wood affirms it. Not only do trees differ, but timber taken from different parts of the same tree may differ greatly. An instance of this occurred in my experience so strongly confirmatory of this statement that the reader will pardon me for relating it. In walking over the lands of a personal friend, I found an ironwood tree

growing upon the dividing line between a bit of primeval forest and a long, cultivated meadow. The tree was so situated that one-half of it was exposed to sun and wind, while the opposite side was always in shadow, except when the rays of a winter's sun, filtered through leafless trees, shone upon it.

The tree was a foot in diameter, smooth, straight-grained, and without limb or knot for the distance of five or six feet from the ground. I cut and removed the tree, with the permission of the owner, caused it to be sawed up into pieces suitable for rod making, and put it in a garret for seasoning. A year or two thereafter I made a heavy (ten-ounce) fly rod from it, which has since done good service in John Brown's Tract and in Canadian waters, not only in my hands, but those of others. "Ben Bent" wrote me from "Camp Mac," in Canada, in August, 1883, of its behavior in the hooking, playing and landing of a three and a half pound sea trout. The timber used in its construction seemed absolutely perfect.

I sent fifteen or twenty pieces of the same log to that veteran rod maker and intelligent man, William Mitchell, of New York. When he next saw me he thanked me for the timber, adding, "I am sorry to say it will not do for rods. The wood looks well, is straight-grained, free from knots, and is strong, but it is 'doughy'—has no spring or elasticity. I attempted to make a salmon rod from it. I will show you one of the sections I worked out." He produced one; I tested it by bending, and found it had little more elasticity than a bar of lead. Now, why this difference in this timber? My theory is that the timber I used came from the sunny side of the tree, and that which I gave to Mr. Mitchell happened to come from the shady side; or was it *vice versa*?

When the rod maker has secured the section of a tree or sapling suited for his purposes, it should be, when green, sawed into pieces of varying thickness, say from three-eighths to three-fourths of an inch. If the log is straight and straight-grained, that is, not winding, as is often the case with ironwood, it can be sawed with a circular saw. If otherwise, it is better to saw it by hand. In order to do this,

\* Shad-blow, or "shad-bush," as laid down in Webster, *Amelanchier canadensis*, is a shrub or small tree allied to the apple, bearing serrated leaves and racemes of white flower. It is common in the Northern (U. S.) States, and flowers in April or May, about the time when the shad ascend the rivers, whence the name. The fruit is edible and ripens in June, whence called June berry. The shrub is also called service berry; it is also called pill berry, probably pill berry from its small pill-like fruit. Its flowers precede its leaves, and the shrub, as it blossoms at the same time as the dogwood, is often mistaken for the latter; although, except in color, there is no resemblance in the flowers. Thoreau, in his "Maine Woods," makes frequent mention of *Amelanchier canadensis*.

it is well to secure the stick perpendicularly in the vise. With the rip saw split the stick down through the centre, taking care to follow the grain of the wood. When the saw has cut its way eight or ten inches into the stick, a wedge can be inserted in the opening, widening it so as to enable the saw to follow the grain of the wood through quite a sharp curve. When the stick has been sawed in either manner, each piece should be examined carefully, and all imperfect ones, by reason of twists or being cross-grained, should be rejected.

If any of the pieces intended for use are not perfectly straight, such pieces should be secured to a bit of plank or scantling with double-pointed carpet tacks of large size, or with any kind of nails, in order that they may season straight. The pieces not so treated should be laid upon a shelf or floor. A garret or loft, or, in lieu of that, a closet having long shelves, in or adjacent to a room heated artificially, is a suitable place for seasoning. After a few days the wood becomes "doughy" or soft, and continues so for two or three weeks. It is well to look over the sticks not secured as above stated once in two or three days, and see if any of them have taken a set. If so, bend the piece in the opposite direction until it is straight or curved slightly on the other side. If this treatment is followed for a month or so every piece, when seasoned, will be straight or nearly so.

Under the most favorable circumstances the wood will not season perfectly in less than one year. Many years ago Mr. Mitchell, above mentioned, informed me that he did not use timber for rods that had not seasoned two years.

*Third.*—Ferrules. Of these there are a great variety. Nearly every well-known rod maker uses a kind that he pronounces and thinks the best. Most of them made in these days are good, notably those made by Leonard and Orvis. For nearly twenty years, and before I knew either of them, I have used ferrules such as I will now attempt to describe, but first I will say:

All ferrules should be made of German sil-

ver—the metal is harder and more enduring than brass.

The butt ferrule, which also serves to secure the lower end of the reel plate, should be three-fourths of an inch long, and have an inside diameter at the upper end of three-fourths of an inch, and taper slightly to the capped end. The ferrule for holding the reel in place should be slightly larger, say one sixty-fourth of an inch, than the inner diameter of butt ferrule. That is, so small that it will not slip over that ferrule, and yet large enough to slide easily upon the handle of three-fourths of an inch when thickened by three or four coats of varnish.

A ferrule should also be made to cover the joiner of the handle with the first joint. This may be half or five-eighths of an inch long, and having an inside diameter of seven-sixteenths of an inch at one end and five-eighths at the other. If the ferrule is made a little smaller than this at the two ends, and they are drawn or widened on the mandrel, so that the sides are concave, the ferrule is of a more graceful shape.

The female ferrule for the upper end of the butt section should be not to exceed two and a half inches in length, having an inside diameter at both ends of five-sixteenths of an inch, and in the centre should be one sixty-fourth of an inch smaller, so that the ferrule will be slightly hour-glassed shaped. The male ferrule for the second joint should be one and a quarter or three-eighths of an inch long, having the same taper as the female ferrule, into which it should be inserted one inch. It is well to spread the upper quarter of an inch of this ferrule slightly over the mandrel, so that the lower end of the second joint may be of the same size of that of the first joint where it enters the ferrule.

The ferrules for the upper end of the second joint and lower end of the tip should be of the same length and shape as those described for the joint below, except that the ends of the female ferrule should have an inner diameter of three-sixteenths of an inch.

The top ring for the tip should have an inner diameter of one-sixteenth of an inch.

The ferrules should be ground together with fine emery, or pumice stone, as a glass stopper is fitted to a decanter, to insure a perfect fit, and to bring the surface of the ferrules in contact absolutely.

If the ferrules are thus made the rod will not throw apart in casting; will not stick, as is almost invariably the case with the old-fashioned ferrules with tenon and socket, if the rod becomes wet; and lastly, no amount of wear impairs the joint, a merit that ferrules made of a uniform size throughout do not possess.

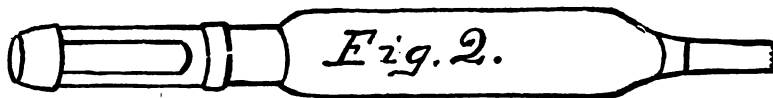
*Fourth.*—Of the manner of making a rod. And first in order is the handle. If the amateur has a turning lathe, or is near one that he can use, or can be used for his benefit, considerable labor will be saved by turning it or having it turned. Otherwise it may be made thus: Saw off a piece of sumac or other wood intended for use, eleven inches in length. Screw this in the vise horizontally and in line with the top of the bench. With an auger bit seven-sixteenths of an inch in diameter bore into the end of the stick. Stop frequently and sight across the brace bit and stick, to see if you are boring straight, changing the direction of the bit by holding the brace a little to the one side or the other, as may seem necessary. It is very difficult for a skilled mechanic, without the aid of a turning lathe or boring machine, to bore straight in the end of a stick. If the grain of the wood is not straight the auger will strive to follow it. With an appreciation of the difficulties to be contended with, and the exercise of care, a hole may be bored approximately straight. It should be of the depth of five or six inches. Next plane out the stick intended for the first joint. Put the grooved planing board upon the bench; drive it with some force against the bench hook to hold it in place; put the stick in the widest groove against the screw intended to serve as a bench hook therein, and with the plane reduce it to the diameter of a fraction over seven-sixteenths of an inch at one end and five-sixteenths at the other. Next place the stick in one of the smaller grooves, so that a corner is uppermost, and plane off the four corners, leaving the stick an octagon. A shaving may

be taken from the eight corners now presented, leaving the stick nearly round. With a wood file, scraper or bit of glass and sandpaper fit the large end of the joint into the handle. Leaving it there, look and see if the hole in the handle is bored straight. If it is not, mark upon the four sides of the block intended for the handle a line in course with the centre of the stick inserted therein, and work down the block by the lines thus drawn. I use rods with a handle from one inch and an eighth to one inch and a quarter in thickness—such a grip is much less likely to cramp and stiffen the hand than a smaller one. With a pencil and try square or rule (both of which should be added to the tools before mentioned) continue the lines drawn on the sides of the block across the ends of it. To accomplish this upon the end bored, remove the joint and put a cork in the hole, upon which the lines can be continued. If all the lines are made with accuracy, where the lines cross each other is the centre of the stick. Set your compass (another tool required) so that you can make a circle upon each end of the stick of the diameter of the desired grip. With these circles as a guide, the block being secured in the vise, with drawing knife and plane it can soon be reduced to the proper size; it should be left square until the next step is taken. Then with the try square mark around the block four inches from the unbored end. With the compass make another circle three-fourths of an inch in diameter on both ends of the stock; then, with try square and pencil, perform that difficult problem of "squaring the circle;" extend the square lines along the four sides of the block, leaving between the inner lines a space of three-fourths of an inch. With drawing knife and files reduce the size of the block, back of the transverse line, four inches from the end of it, to the inner lines, or the thickness of three-fourths of an inch. Then, with drawing knife, plane, file and sandpaper, make the whole round and chamfer the "grip" part of the handle, as is seen in Fig. 2, or as suits the taste of the artist. Fit the butt ferrule, and make the reel seat of the proper size to receive the ring ferrules. Next remove the cork from the handle, insert

the first joint, and measure off from the butt end forty inches—if you desire, as I would recommend, a ten-foot rod—or more, if the rod is to be longer, and cut off from the top any excess in length. Then fit to the upper end the female ferrule designed for it, in such a manner that the wood may be inserted one inch, and that the joint is no thicker for an inch below the ferrule than at the point covered by the largest part of it. If the wood is cut away any, the least, to receive the ferrule, that point becomes the weak spot in the rod. Then work down the joint so that it will be a gradual taper from the point covered by the handle to the ferrule.

The second joint and tip should be made of the same length as the butt, including the handle, and should be planed and worked

and swing it from side to side, watching carefully every portion of the rod. If, as the rod is thus swung, it presents a curve slightly deflected near the handle, but increasing regularly and progressively to the end of the tip—if in using it, as in fly casting, it is not top heavy, or weak and “floppy” at or near the middle of the rod, it may be considered perfect. If, on the contrary, there are places in the rod where it seems to be stiff, breaking the true curve, mark such places with a pencil, and work down with a file and sandpaper until the action is homogeneous in all its parts. If the rod is top heavy, the tip, and possibly the second joint, should be made a little smaller. “Cut and try” is the rule to be observed until perfection in action, as near as may be, is attained.



down to the proper size to receive the ferrules, and with a gradual taper as before described. In planing the second joint and tip it is not safe to trust to the stiffness of the stick to resist the forward pressure of the plane. While the stick is yet square, a good way of avoiding this danger is to put the stick in a groove a little larger than the stick, bring it back on a line with the rear end of the planing board, and drive in a wedge between the stick and one side of the groove; thus the stick is held without danger to it in planing. When the tip is nearly small enough I finish the large end of it for a few inches, and put upon the end a small hand screw. The projection of this catches against the end of the planing board and prevents its being pulled forward by the plane, and furnishes a convenient handle by which to hold and turn the joint as you reduce it with both plane and file.

After the joints have been worked down to the proper size, as judged by eye and measured by the calipers, and the ferrules have been properly fitted, put the rod together and test it thus: Grasp the handle firmly with both hands, holding the rod horizontal before you,

While the rod is together, decide which side of the butt shall be uppermost when the rod is completed. In determining this, examine the grain of the wood, and holding the joints so that the seams indicating a year's growth are to be seen on the sides of the rod; then, with pencil, mark the top of the joint and also the handle, so that they may be permanently secured in the same relative positions, and also to indicate on which side the reel should be placed. Remove the first joint from the handle, secure it in the vise, lay the reel upon the handle in such a position that one-fourth of an inch of the reel plate will be covered by the butt ferrule when it is in place; mark carefully around the reel plate and cut away the handle, where thus marked, until the end of the reel plate will pass under the butt ferrule, and that the reel ferrule will pass over the upper end of the reel plate and hold it in place.

The next step is glueing of the first joint into the handle. For this purpose the ordinary brown carpenter's glue is best, because the strongest. If the amateur has not a glue pot, he can improvise one by taking a small tin can or tea cup, putting into it a small quantity of

glue, adding a little water, and setting it in a basin, or other vessel, containing a little water, and placing this upon a stove or range, and keeping it there, adding a little water from time to time, as is necessary, until the glue is melted and of the proper consistency. Then warm the handle and joint to be glued, and with a small bristle brush besmear the inside of the hole in the handle, and the portion of the first joint to be inserted therein, with hot glue, and force the joint into the handle, taking care to observe the marks you have made showing how they should go together. All this must be done as quickly as possible, as the glue hardens or "sets" in a very short space of time. Some hours will be required to harden the glue. When it becomes hard, the ferrule covering this joint may be fitted to its place and secured thus: Slip the ferrule down upon the rod half an inch or so, place inside the ferrule a few scales of shellac, heat a poker or other bit of iron red hot, hold it upon the ferrule, upon different sides, until the shellac is melted, and quickly shove the ferrule to its place. The other ferrules should not be secured until the next described steps have been taken.

If it is desired to stain or color the rod, the extract of logwood dissolved in water may be used, and applied with a brush or rag. Two or three applications will produce a brown color not unlike mahogany. If a weak solution of copperas is then applied here and there with a camel's hair brush, the parts to which it is applied will become black. A little experience and examination of the woods to be imitated will enable the artist to produce a very respectable mahogany or rose wood.

Red and black inks may be used separately, producing, after several applications, a black, carmine or vermilion, according to the shade of ink used; or when mixed together, or applied alternately, almost any shade of dark or reddish brown may be produced.

The matter of color is one of fancy altogether, and not, in my opinion, otherwise important. It is supposed by some that an olive green, gray or ash-colored rod is less likely to

be seen by the fish, and is therefore best. I have used rods of the natural color of the wood, of black, brown, mahogany, rose wood, and, for many years, one of bright vermilion. I doubt if the trout discriminate between the colors of the rod, or ever see one at the distance of twenty to fifty feet, and 'tis not often a trout is hooked when nearer than that to the angler.

If a stain of any kind is used, or any moisture is applied to the rod, it will have the effect of raising the grain of the wood, leaving it very rough and unfit for varnishing. To remedy this take a steel mandrel, the ivory or bone handle of a tooth brush, or a bit of hard, round wood, and rub over and burnish every part of the rod to which the stain has been applied. This will render the surface smooth and shiny.

*Varnishing.*—This should be well and thoroughly done; it is as important as any one step in the process of rod making, not only as regards the appearance of the rod, but in protecting it against rain and moisture. If a rod becomes saturated with water, and is used while wet, its elasticity and temper are destroyed and can never be restored. Some persons recommend and use one of the many wood "fillers," used, as a matter of economy, in finishing furniture made of soft and porous woods, which otherwise would absorb a great deal of varnish. In my judgment they should not be used. They are made from starch or some other sizing and plaster of Paris. They will not withstand water, and will crack if the surface to which it is applied is bent. Shellac varnish, which is used by some rod makers, even is objectionable for the latter reason. Gum shellac is very hard, brittle and non-elastic. It is cut or dissolved in alcohol and spread upon the wood as a varnish. The alcohol evaporates and leaves upon the surface of the wood a thin film of this hard, brittle gum. When the rod, covered with this, is bent in the using, if it does not "flake off," as I have seen it do, it will be cracked into myriads of pieces, and the cracks, though scarcely perceptible to the naked eye, admit moisture to the wood and spoils the rod.

[TO BE CONTINUED.]

## ARTIFICIAL FLIES—CAN ARBITRARY RULES BE MADE FOR THEIR USE?

By D. S. KIMBALL.

In "Notes and Queries" of the December, 1891, number of *THE AMERICAN ANGLER*, under the heading, "Making of Flies," the following statement appears:

"The best general rule is to use a light fly on dark and shady streams, and at dusk, and a dark fly on light or open streams. Many other anglers, however, use a reverse method and think it best."

The question at once arose in my mind, how can rules, and even general ones, be followed, when the conditions to which they are applied vary so widely, for we all know that flies successful on one stream are of no earthly use on others of the same physical conditions. Again, the kind of fly which is steadily successful on one stream must be replaced by those diametrically opposite in dressing on other streams of the same general conditions; or, in other words, the bright flies necessary on one open or shady stream will not rise a trout on other streams fully as open or shady, but must be replaced by those of dark or medium colors. And then, again, trout may be taken on some streams with bright or dark flies indiscriminately on one day, and, perhaps, the next day, the fly most killing the day before becomes a "back number," and the day following, all flies, irrespective of shape, color or condition, become a mockery.

All fly fishermen have their individual opinions, and, when intelligent experience is behind those opinions, they are to be congratulated in the possession of something that will conduce to a full creel and a delightful day when they "go a-fishing." We read so many opinions and rules set forth by the doctors of the art that, unless experience comes to our aid and teaches us to accept these opinions and rules with a large modicum of salt, we should, many times, exclaim, "Who shall decide when doctors disagree?" and give up the gentle art in despair.

Let us look a moment at the teachings of some of the bright lights of the art, and see if

we can decide for ourselves with or without the aid of experience, and you will agree with me, I think, that experience is a good thing "to have in the house."

"Senior Angler" (Wheatly) says: "A small and sad-colored fly is to be preferred in a bright and shallow water; a large and gaudy one in discolored or very deep, rapid water, or on a blustering day."

Hamilton says: "In looking back on the experience of nearly forty years' fly fishing, I find that, in regard to the color of the fly, I cannot agree with 'Senior Angler.' A bright fly on a bright day, and a dark fly on a dark day, is my rule." Again he says, "Color and size are the most important," and lays great stress on the color.

Ronalds and Francis are pledged, by their teachings, to the exact imitation, or an imitation as near as possible, as to shape, color and size. They uphold using the natural ephemeridæ, or their counterfeit representatives, approximating in form and color to the insects native to the waters fished; and that, as different months, and even weeks, find different insects abroad, we must change our counterfeits accordingly, and so use only what we find on the waters at the time. They, therefore, give a list by months and days, and, in some cases, morning and night, and insist that it is imperative to use particular flies at stated times, according to the activity of insect life on the particular stream fished.

Stoddart teaches the exact opposite when he says: "The fastidiousness of many anglers, with respect to their trouting flies, has always occasioned me astonishment. These fastidious anglers, who exult in the possession of five or six dozen varieties, give credit to the fish for possessing a power of discrimination, not less than a degree of daintiness or epicurianism, altogether extraordinary."

Pennell goes to one extreme in discarding all but the three "Pennell hackles," as Ronalds, Francis, "Ephemera," "Aruido" and others

go to the opposite extreme in their doctrine of natural insects or exact imitations.

Some may say that these quotations are from English authors exclusively, and that the trout of Great Britain is *Salmo fario* and not *Salvelinus fontinalis*. That is true, but the general experience of anglers has been, and is now, that the differences met with are in the character of the waters of the two countries and not of the fish, for the same flies that will take *S. fario* will take *S. fontinalis*. There are some streams in England, particularly those of the chalk country, where but few varieties of flies can be used, most of them being imitations of the ephemera of that section, and they are usually used up stream instead of down. The tackle is also much finer, and, in not a few of the very open, clear and weedless streams, both flies and tackle are of the most delicate character. In this country we have but few streams approaching in character to these chalk streams, and, as a general rule, our tackle is heavier, for we find that, frequently, we are obliged to depend on a little more strength and a little less science to prevent being "broke," especially on our rough and snaggy streams; and these, where the larger fish are taken, usually run through an extremely rugged country, and are full of obstructions of one sort or another, which makes extremely light tackle practically useless.

I am always in favor of light tackle where it can be used, but cannot quite understand why prejudice so strongly overrides common sense—especially where prejudice is so much more likely to "come out at the little end of the horn"—and prevents some anglers, such as I could name, from using tackle more suited to the water, or day, than the gossamer stuff they do use upon all occasions, simply because it is a little finer than that of any one else.

To be able to use fine tackle properly is the *ne plus ultra* of the art, but to adhere to its use at all sorts of times is only to show an obstinate opposition to the practical, for of what use is the most beautiful and gossamer-like tackle, except for show, when the wind blows your flies back into your own mouth, or will not let them lie a moment on the water, but

plucks them up in the air and keeps them whipping everywhere except where the trout are. On some waters, especially abroad, fine tackle is imperative at all times, but, in general, that of medium character is by far the most satisfactory; but by far the most necessary portion of the angler's outfit is the flies he uses, and these must be adapted to the various waters he frequents.

Hamilton says: "No one can become a good fly fisher who has not a quick eye, a patient mind and a gentle hand."

This is true as far as it goes, but there is another quality as necessary to the fly fisher as the three above quoted, and that is, a willingness to discriminate against your most favorite fly in favor of one adapted to the whim of the trout in the waters you are fishing, notwithstanding that the fly you are impelled to use is held by you in lowest esteem.

The fly fisher who has followed the gentle art for years, and has laid aside prejudice, not only becomes a convert to the fact that trout will take only that which suits them, and that, while we make general rules, and some that are not general, for enticing them, they seem to have a code of rules for themselves which "no feller can find out," and continue to indulge their vagaries in sport or from hunger, and do just what they please and no more, and the angler soon realizes that it is steady patience and experience that tells in the long run, and teaches him, if he has a level head, to bait his hook with more brains and less rules.

There are times when the sorriest conglomerate, tied on a hook in the most barbarous manner, will take trout as fast as presented, and why this is so no one has yet solved; when they will take a "chunk of old horse," or anything else, and that thrown at them with a splash loud enough to wake the dead; and then, again, the choicest specimen of the fly tyer's art, the very darling of his imagination, cast with the practice of years and as light as thistle down, will cause *S. fontinalis* to scurry to his friend in the next county, and cause all thinking anglers to argue "why is this thusly."

*Salvelinus fontinalis* is the most "curious-cuss" that poor tired humanity has ever



been called upon to tackle, and he who gets the art of fly fishing "down fine" deserves to wear a No. 9 hat, have a soft, soft cushion in his every-day chair, be buried beside some babbling brook of his choice, and have upon his tombstone: "When this man walked the earth *Salvelinus fontinalis*' name was Dennis." May he never have wet feet any more; may he always be warm, not too warm, but just warm enough; may he have a little cloud for his very own, and may he "among the angels stand," a creel upon his shoulder and a fly rod in his hand. *Requiescat in pace.*

There are three or four classes of fly fishers, and their methods are as distinctly marked and different, one from another, as is possible to be; for instance:

There is the old fossil, who adheres to cast-iron rules, and not less cast-iron opinions of the ancient barnacles of the craft, and rigidly sticks to those rules and opinions, which he puts into practice, believing that it is absolutely necessary to invariably use one character of fly on open or light streams and another character on dark or shady water, and that it is not only *au fait*, but imperative, to change at certain times of the day and use a certain cast, say at five o'clock A. M., another at six, another at seven or a quarter past, and so on throughout the day, according to climatic changes and by the clock. We have all seen such an angler wading down stream—some affect to always wade up—clothed in a complete armor of rubber or corduroy, and perhaps clothed also in his right mind, with flies dark and flies light, flies known and flies unknown, of all sizes, colors and shapes, stuck all over his coat, vest and hat, so as to have them handy for the inevitable change with every hour and passing cloud. He reminds us of *Punch's* description of "Ye Sunberye Fysher," which is as follows:

Ye Sunberye fysher has flies of all feathers,  
For all sorts of seasons, in all sorts of weathers;  
Flies when ye springtide is blusterie and showerie,  
Flies when ye summer is greenie and bowerie,  
Flies when ye autumn is golden and granie;  
For hot weather, cold weather, mistie or rainie;  
Red spinner, palmer, black peacock and gray,  
Yellow dun, golden dun, March brown and May,  
Sand fly, and stone fly, and alder and gnat,  
Black midge and Marlow bug—all round his hat.

And when we see him, we wonder how the trout can bring themselves to spare the time from admiring his gaudy and dazzling physique to bite at that which he presents to them, neither he or they knowing, rightly, whether it is "fish, flesh or good red herring," for you will find, upon examination, his fly book not quite full, but full enough, of conglomerate representatives of things he calls flies, not seen on earth, nor over the earth, nor under the earth; and, as we look them over, the old couplet comes to mind:

These things, we know, are neither rich nor rare,  
But wonder how the devil they got there.

This hero of a thousand flies goes obstinately on his way, and wonders why he does not fill a thirty-pound creel, "by gad," every day, "by gad." May he have luck every time he changes his cast, for he deserves it for his steadfast riding of an antiquated, played-out hobby.

There is another class who say, because certain waters are the habitat of certain of the ephemeridæ, then it follows that the counterfeit of such must and only can be used with any hope of success; and we see this man, with microscope in hand, prying into the internal economy of every trout, he is fortunate enough to catch, to learn, if he can, the epicurian taste and nervous condition of his take, and to decide, in his own mind, from the condition of the interior of *S. fontinalis*, whether he is married, and has his better half and family in the hole from out which he was yanked, and also to determine which fly will be most likely to induce said wife and little ones to come out of the wet and mournfully join the funeral of the head of the little family. If he finds, during his explorations, a striped bug, then "Mr. Professor" is the boy to do the little job. Should he drag forth a white grub or a white miller, perhaps a "silver doctor" will prescribe for their ailments; and should these fail, a "light widow" will, perhaps, be put forth to lure *Salvelinus* to his doom. Mr. Pickwick has left no record to tell us positively whether Mr. Weller, the elder, was a fly fisher or not, but, if we can, by reading between the lines, judge of the hidden meaning contained in any book, I should say decidedly that he was, and

was fully conversant with the killing quality of the last-named fly, when he so earnestly cautioned Mr. Weller, junior, with the sage advice, "Samivel, Samivel, beware of the vid-ders." In case a worm presents itself to our friend "Ephemeris," as I will call him, he is obliged to ask some brother of the angle what it is, for he would hold up his hands in holy horror at the mere thought of using the bait that has caught more trout than, probably, all other lures combined, and to actually use such vulgar and unsportsmanlike bait would give him the shivers the balance of the day, and inflict him with a nightmare of worms for a week or more.

This class of anglers, while they oftentimes carry their crotchets and whims to the top notch of absurdity, must be given the credit of being consistent in their opinion; also, it is from them we learn to a great extent the "scientific art" of the gentle angler, although I cannot bring myself to believe that it is any more scientific to take fish with artificial bait than it is to take them with their natural food, including the much abused, every-day worm; and that a genuine lover of the angle will not disdain to use it when necessary.

There is another class of fly fishers—and I should not be surprised, Mr. Editor, if you are a consistent member of same—who do not put implicit faith in the narrow teachings of either of the others named above, but, laying aside iron bound rules and prejudices, rely more upon experience, and use such flies as will conduce to a full creel, or, at least, an enjoyable outing, and with little regard to flies light or flies dark on dark or on open streams respectively, or the reverse; keeping their eyes upon every ripple, or backwater, or pool, much more intent than upon every little cloud in the sky not larger even than a man's hand, or feverishly noting the birth and death of the hundreds of species of ephemeridæ that are to our friends and fellow casters "Fossil" and "Ephemeris"—a warning for an immediate change of cast.

The angler of this latter class bends all his energies to first finding the trout, and then to coaxing them with what he finds the most at-

tractive fly. In other words, he uses very largely the "Git Thar" fly, and, in comparison with "Fossil" and "Ephemeris," catches three trout to their one. How many times has it been our experience to find a fly, or set of flies, steadily successful on particular waters suddenly become of no practical use, and then the substitutes, after a season of success, also have to be discarded for the first used—the old favorites; and I think this is the experience of all fly fishers.

We all, probably, know open streams where the trout will rise to dark flies only, and others, fully as open, where a bright fly is the only one *S. fontinalis* will deign to look at, and then again we find streams where color, bright or dark, make but very little difference, and many times we find the reverse of all the above. My practice, and I cannot say it is very extended, being limited to New Jersey and Connecticut, when trout fishing in those States, was a pleasure, and not hard and disappointing work, and to New York and Vermont for the past thirty years or more, has been, that although I use the "Git Thar" fly—by the way, this fly is of all shapes and colors and sizes, dressed as palmer, hackle, with wings and without—unless I am pretty well acquainted with the water, I endeavor to get the benefit of the experience of some of the local anglers, and generally find one or more delighted to impart all his hard-earned knowledge, and tell all about the neighboring streams; also about their rods and their flies, and when and how to use them to suit local conditions; to tell of the good times they have had on some of the beautiful streams in their locality, or of their campings out with one or more congenial spirits, and of the good times they expect to enjoy again. Your true angler can no more help being talkative and good natured and big hearted than a duck can resist taking to water. I tell you, Mr. Editor, there is no nearer kin found on this mundane sphere than among the "Brotherhood of the Angle."

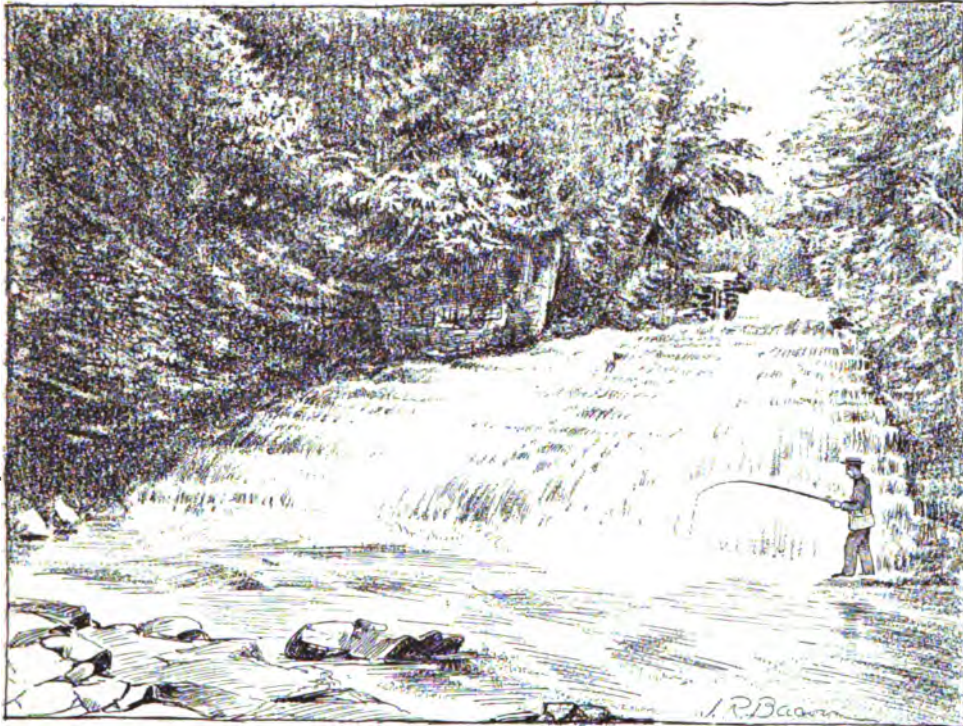
In case I cannot find such anglers as I have described, which very seldom happens, I make up my cast with the three grades, light, dark

and medium, and, as all good anglers do, mark which is most often risen to, and then "go-a-fishing."

As I said before, trout are past finding out, as to their vagaries in taking certain flies eagerly at one time, and then at another, under the same apparent conditions, disdaining to even look at them. These are the times

the same success at another time on the same water, and under precisely the same conditions: no more than a weak fish or striped bass will take shedder crab or white worm at all times, to the exclusion of every other bait.

It is also our experience that the standard fly or flies, on any particular water, although they may fail most disastrously at certain times,



GREAT FALLS—SALMON RIVER.

when all experience is put to fault, and rules and opinions of all sorts become void and of no avail. It is at such times the patience of the angler is put to the test, and the fly least thought to have any killing quality whatever becomes, perhaps, the only one that can be used, even with partial success, until the whims of the fish indicate their ideas of the feathers wanted. This experience, I think, comes to us all, and because a scarlet Ibis or silver doctor, or some one of the subdued colored flies, fills your creel one day it is by no means certain that the same fly will meet with

nevertheless they can be depended upon at nearly all times, but not to the exclusion of all others, to bring to the patient angler the reward of his labors. I think all anglers, even "Fossil" and "Ephemeris," will agree with me that the flies to be used are those that will catch the fish, and that, without much regard to other conditions, such as those of water, light, time or weather, and that, if it is possible to make rules that are not a delusion and a snare, they should be applied to individual waters, and not to the fish, for the experience of fly fishers is such that the most

observant or them come to realize that to apply fixed rules for the use of flies upon all streams of the same general character is not conducive to success. For instance, on the Neversink, in New York State, a very open stream, a light or bright fly is N. G., but all frequenters of that stream find they must use dark or dull colored ones if they expect to catch anything besides chub or dace, and, with but few exceptions, this holds good upon all the waters of that section. I do not mean by this the immediate locality only of the Neversink, but throughout the whole of the middle section of the Eastern and Middle States. On Salmon River, in Franklin Co., in the same State, also a very open stream—from Pond's Landing down to the State Dam a very much more open stream than the Neversink—a light fly is just the thing, and the brightest and most gaudy, provided they are dressed small, can be used morning, noon and night with success, and from the State Dam down to Titusville the same flies are continually in use with killing effect, although this portion of the river is much more dark and shady.

I remember one August day in '84, when I had taken my guide, Wm. Smith, and gone below the dam to fish as far down as the falls, and, in my haste, had carelessly put the wrong flies in my pocket, so that when I had reached the first pool where flies could be used, found I had a lot of dark and refuse ones. The only thing I could do was to make the best of a bad job, and tried my stock faithfully, and with not a single rise. As a last resort I put on, as stretcher fly, a dilapidated yellow Sally which had seen very much better days—wings eaten off to a stump, legs gone and body moth eaten—and yet the trout rose to it at almost every cast, until I was "broke," and lost poor Sally.

At any rate, I got quite a few trout, and this on a hot morning, with a bright sun, and the water clear and without a ripple. In July, '90, I had somewhat the same experience with bright flies on the same river, at the head of the meadow just below the Alders, where, on a hot, very hot day, and the water as smooth as glass, my scarlet Ibis,

red hackle, and yellow dollie was risen to continually, and I have found that a white miller or a coachman is as useful, when the fish are on, throughout the day as they are at other waters morning or evening.

There is one place and one time on this river when it is no use to try any fly in any manner, for if you do you will go home "skunked." The place is at the pool just at the tail end of the apron of the dam, and the time is when the trout are jumping. I have seen the pool alive with fish, and the water boiling with their jumping; and it is awfully aggravating to see a score or more beauties of from a quarter of a pound to two pounds or more, flip themselves out of water, and flirt their tails in your very face, and you stand there knowing that all your experience, and all your flies—light, dark or otherwise, will not take one.

The same conditions prevail, as to the use of bright flies, on Indian Lake, Ragged Lake, Figure of Eight Pond, Mud Pond, on Charlie and Deer Ponds, on Ingraham and Plumadore; while the dark flies, with the exception of the black and gray gnat, brown and dark red hackle, soldier palmer, coch-y-bondhu, and a peculiar reddish brown shade, cinnamon, are very disappointing. The black ant can always be used in combination with a bright fly on this river, and on the waters near by. Once in a great while a dark fly will take a large trout in this region, and by large trout I mean from a pound and a half upwards. The largest I have heard of being taken on Salmon River for a number of years was a little over three pounds, and that was one of three taken out of one hole, and the fish weighed collectively five pounds and thirteen ounces.

The largest I have taken was in August, '84, just below the outlet of Ragged Lake stream; it weighed a pound and fifteen ounces two hours after being caught. It was, without doubt, a Ragged Lake trout, for they, as well as Charley Pond trout—which pond has, also, an outlet into Salmon River—are taken in the river a few rods above, and below the outlets mentioned, and very seldom anywhere else on the river, ex-

cept in very low water, when they go down into the deep holes in the meadow. They can be distinguished at a glance from the the natural river trout by their shape and markings, and in the case of those from Charlie Pond will not keep well for any length of time, becoming soft soon after being taken from the water, while those from Ragged Lake and the river will keep well and bear transportation any reasonable distance, if properly packed in ice and moss.

There are some who call themselves anglers who smoke their catch for winter use,

good for such vandals, but I suppose they call their smoked *salt* good.

The large trout of Salmon River are seldom taken with the fly, and the best lure I have found is a narrow piece of the belly of a small trout with the ventral fins attached, and put on the hook with the end of the fins towards the head of the hook, and on the back of the shank, the same as a reversed wing fly, and used by "sinking and drawing." The "Parmacheene Belle" is an excellent representative of this bait, and is most successful when used the same as



INDIAN LAKE—EMPTYING INTO SALMON RIVER.

going into Ragged Lake in the spring, and taking quantities of fish, including a few rainbow trout, and, once in a while, a land-locked salmon, with which the lake was stocked a number of years ago to a limited extent. Why, I would as soon think of eating smoked rags, for it appears to me the delicate flavor must be entirely spoiled by the salt and smoke. Trout are entirely too

the natural bait, and if dressed small, say on a No. 9 to No. 12 Sproat, or sneck-bend, is a killing fly in this region, as well as on the rivers and lakes of the Rangely section, but, as you know, must be set up on a hook considerably larger than for Salmon River.

[Some time last year one of our readers asked: "Which flies are best for black bass?" We responded:

"Every angler who has fished a stream with a fly for some years becomes 'set' in his ideas as to the best feathers for his favorite fish. We are not an exception, and you must take the following with the above qualification: When we fish flowing water—we don't care a fig to fly-fish quiet ones—we always use for black bass, red, black and gray palmers, with the hackles tied 'buzz' well down to the bend of the hook. There you have our opinion, young angler, but ten to one the next 'bug-chucker' you meet will button-hole you on the excellent qualities of his 'spider fly,' with its meagre feathers tied on the upper end of the hook shank. This fly question is as unsettled as the long-mooted one of 'holding on or ahead' existing among field sportsmen."

Subsequently the above query was repeated as to trout flies, and the matter being one of great interest to the Craft, we gave brief extracts from the opinions of well-known angling writers, with which we supplement Mr. Kimball's interesting paper:

"Of winged flies I use only the brown hen and the coachman; of hackles, only a brown, a black and a ginger."—*Thaddeus Norris*.

Genio C. Scott, who is best known as a salt water angler, is non-committal. He simply writes: "The angler, on making a lengthy tour for sport, cannot have too great a number or variety of artificial flies."

Charles Hallock gives descriptions, names and methods of dressing flies for each month of the year, but does not express a personal preference for any particular fly.

Writing of sea trout, A. R. Macdonough decides that "one need not go beyond the range of a red-bodied fly, with blue tip and wood duck wings, for ordinary use; a small all-gray fly for low water in bright light, and a yellowish fly, green striped and winged with curlew feathers."

T. C. Hoffman writes: "The flies used in lake fishing are larger than those for rivers, and I have frequently observed that the winged flies answer better than palmers."

Hewett Wheatley states: "Imitate ever so closely the form and general character of the fly at which the fish are rising—if the color be wanting you will have no sport."

"As a general thing it is a waste of time to be forever changing your flies. If the fish are not rising it is entirely useless to fling an assortment of flies at them."—*T. S. Up de Graff, M. D.*

"The idea that each month has its own killing flies is sheer nonsense; a fly that is good on a bright day in spring is good on any other bright day."—*Fred Mather*.

"It is well to have in your fly books a little of everything, but of gray and brown hackles, coachmen and professors, an abundance."—*L. B. France*.

"The kind of flies to be used vary with the locality, stream, state and stage of the water, weather, etc. \* \* \* The only way is to keep trying until the one is found that does please."—*Chas. F. Orvis*.

"A brilliantly colored imitation of a fly will lure them, and herein largely consists the science of a fisherman in judging what style of fly is appropriate to a peculiar state of the atmosphere or locality."—*T. Robinson Warren*.

Prof. Rennie writes: "The aim of the angler ought to be to have his artificial fly, by its form and colors, to attract the notice of the fish; in which case he has a much greater chance of success than by making the greatest efforts to imitate any particular species of fly."

"I esteem the color of the fly's body of far greater importance than that of the wings."—*Hewett Wheatley*.

"I would advise all experts to keep a well-filled fly book."—*George Dawson*.

"My favorites, on the whole, are all the red, brown, orange and yellow hackles, and the blue and yellow duns."—*Frank Forester*.

"The palmer hackle is never totally out of season."—*Alfred Ronalds*.

"Good flies for black bass trolling are: Montreal, scarlet ibis, brown hackle, Cheney and grizzly king."—*M. M. Backus*.

Referring to black bass fishing, Dr. Henshall writes: "I have had more uniform success, day in and day out, with the black, brown, red, yellow and gray hackles (palmers), than with the winged flies."

"To load yourself with swarms of flies is folly. \* \* \* Use a dark fly for dark waters and a bright fly for bright waters, notwithstanding the most reasonable arguments to be adduced *per contra*."—*J. J. Manley*.

It is fitting to close these quotations by one from the father of anglers, the immortal Walton:

"Note that usually the smallest flies are best, and note also that the light fly does usually make most sport in a dark day, and the darkest and least fly in a bright or clear day."—EDITOR.]

## AMONG THE SEA TROUT.

BY THE LATE COL. F. S. PINCKNEY (BEN BENT).

"From a wild weird clime that lieth sublime,  
Out of space—out of time." —*Poe.*

"He must go; there's no help for it."

"Oh! doctor."

"Yes, my dear madam, drugs have a mission. I may say, indeed, a glorious mission; but, madam, he is beyond the reach of drugs, and I repeat it, he must go."

"But, doctor, surely you—"

"Yes, I understand, but the days of miracles have passed. We doctors have a mission; indeed, I may say we have, in conjunction with drugs, a great mission to fulfill, but there are cases, you understand? eh? in short, I say he must go."

This half whispered conversation, drifting in through closed doors upon an enfeebled nervous organism, was not cheering. The warm July sunshine fell in mazy bands along the floor through the bowed window blinds; the canaries on the porch sang wild and joyous melodies, to which such distance lent enchantment; the laughter of children at play upon the lawn was borne in sweet fragments to my ear, and the sonorous bark of old Mark Antony, my staunch companion on many a brush-clad hillside, rang clear in the morning air.

And this was to be the end of it all. No more long sunny days on sparkling streams. No more fair moonlight nights in forest camps. These were half waking thoughts.

My next, a Queen Mab fancy that I had been

for ages a pre-historic saurian, and had suddenly come to life in a pool of surpassing beauty, over whose surface flitted all gaudy forms of insect life, but that, on *rising* to take one more brilliant than the others, it was, upon the instant, transformed into Gabriel's trumpet, and a loud voice proclaiming, "*Lo! this is your last rise!*" awoke me with a violent shock.

To this succeeded a wholly incongruous desire to eat ham and eggs once more.

The breakfast table, laid for the nonce on the vine-clad "back piazza," greeted me with a

delight that appeared, in the circumstances, unseemly. Could these be but the masks of bitter tears? Was it quite proper that a man upon whom had been pronounced a solemn professional death warrant should be greeted with cries of "Hello! Pop." To be sure my Ethelinda hastily brushed away a tear rather furtively after her first swallow of coffee—but was it a tear of grief?

My Ethelinda rather takes pride in having the coffee hot.

"Ethelinda," said I finally, in a solemnly cheerful voice, "I overheard what the doctor said this morning. I am glad, very, very (here a bit of muffin stuck in my throat and I coughed), "very glad to see you take it so calmly. You will bear up against the blow, Ethelinda?"

"You know I do not want to be separated from you, dear Ben," said she. "It is so nice to have some one to find fault with and nag."

"And the children, Ethelinda—what is to become of the children when I am gone?"

"Well, they will miss you, of course, Ben, but then they have the new pony to play with, and I thought, maybe, their Aunt Methusalem might come and make a little visit; she is so jolly, and they could have a charade party the night of your departure, and a straw ride the next afternoon, and—and—why, what on earth is the matter, Ben?"

I think I must have looked real mad, though I only meant to look horror-stricken, and I said in a thrilling tone of voice:

"Am I dreaming, or is it true that my Ethelinda sits there coolly proposing to make my death an occasion for domestic merry-making?"

I think if I had been a little less mad and a little more horror-stricken I should have burst out crying then and there.

Ethelinda dropped two pats of butter into my second cup of coffee, and upset a jug of maple syrup into her own lap, as, starting from the table, she exclaimed:



"Benjamin Bent, you are raving crazy. Who said anything about your dying?"

"Why, the doctor, Ethelinda—the doctor, dear. He said I must go; no help for it; I must go. I heard him, dear. Don't try to fool a dying man; I say don't, Ethelinda."

Mrs. Bent said "Oh!" in a tone between a shriek and a gurgle, and sat down upon her chair with a catapult force that threatened to drive that useful article of furniture clean through the floor into the cellar kitchen. Then Mrs. Bent had recourse to the hysterics, that safe retreat to which her sex fly in times of trouble, and finally blurted out between jumps:

"The doctor—only—only said your liver—liver was out of order—order and you *must go a-fishing*."

[GRAND TABLEAUX—By all the *dramatis personæ*, the details of which are confidingly left to the individual imagination of my readers.]

## II.

At our gateways stands always the sentinel Chance, admitting or excluding, as suits his fitful fancy.

The messenger boy who arrived at this moment passed it unchallenged, and I read the following dispatch:

"Take 12.30 train at H— to-morrow night; tickets and berths secured. Remain four weeks on the Ponsnegon.

(Signed) MATTHEW MEREDITH."

"Who is Matthew Meredith?" queried Ethelinda, "and what does it all mean?"

Dear old Matt. Meredith is a professional philosopher," said I, "and it means that I am to go fishing with him for a month. His philosophy, like my malaria, is proof against all temptation save sea trout."

"Well," said Ethelinda, "if he's a philosopher, I can't quite see why he should want you to go fishing with him; *you* don't know anything about philosophy."

"Don't you see," replied I, "that this is just why he wants me? He will find in the pure vacuity of my unphilosophic mind much needed professional rest. He will bask in the bright warmth of my ignorance, and his gray tissue will be bronzed by constant exposure to the noonday rays of my inconsequence."

"Ben," said Ethelinda, "that's malaria

coming on again. You ought to take ten grains of quinine."

And I did, and I also took my Leonard eight-ounce split bamboo, and my eleven-ounce Barberry rod (the gift, long ago, of "Fitz"), fashioned, by comparison, like a weaver's beam; and my Knickerbockers; and wading drawers such as cover any multitude of sins below the armpits (like a sort of limited charity); and shoes shod with a preparation of hob nails; and an A tent, and much small paraphernalia packed, with the mystic skill of a juggler, in a medium-sized trunk—and I did catch the night train as directed by the philosopher, and went fishing as directed by the doctor.

For many hours the moonlit landscape drifted by, and the monotonous music of the flying wheels underneath brought peace to my soul, while the busy world of care grew less and less and the trout stream more and more. Meantime the tired philosopher snored syllogistically in the opposite berth.

The memories of all pleasant things merge into one perfect impression not easy to disintegrate; while recollections of the disagreeable stand out in sombre silhouettes against some brighter background. The philosopher says this is because the mind idealizes gladness and assimilates the ideal, while it individualizes sadness and rejects it in detail. Be this as it may, we all know how imperfectly one recalls for description the details of any trip which has been all "sweetness and light."

For my own part, I never really knew exactly where we went, and recall only vaguely how we got there.

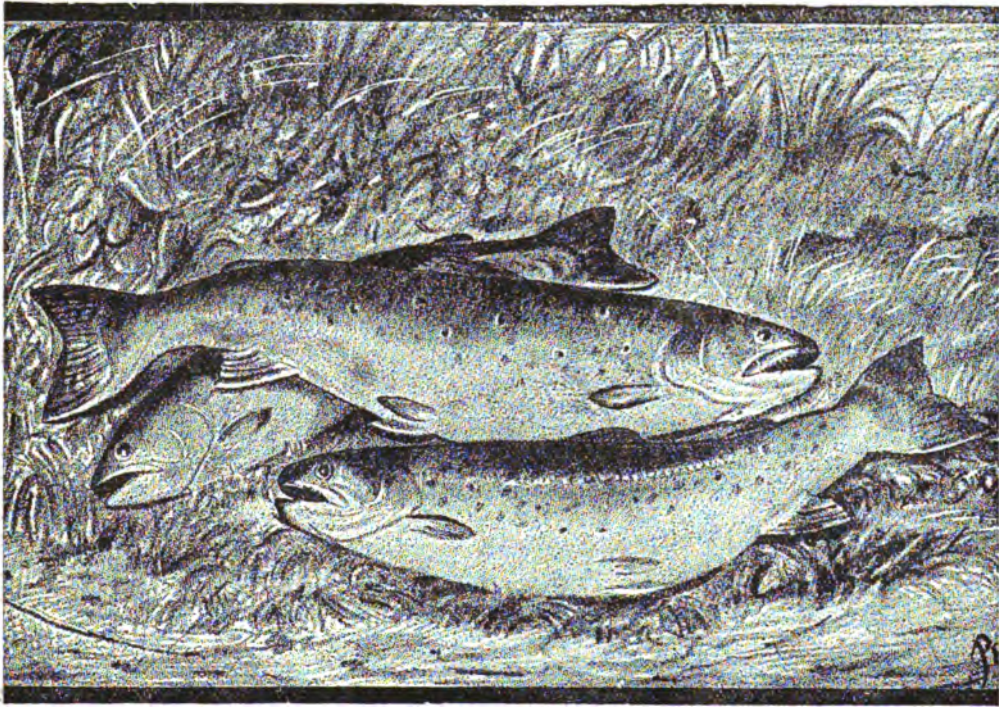
A chance note made at the time brings back the fact that on one soft, sunny morning at the close of July, I awoke on a steamer which was lying at Point Levis, opposite Quebec, with the town and its overhanging fortifications in full view, and that it struck me then and there as a far more foreign-looking place than most of those I had seen abroad. It is very quaint, and in a hundred little ways tells its own story of early struggle, much as the wooden leg of a soldier, that renders him helpless, tells of his former prowess. To most persons it suggests

by contrast, the strides of progress; to the philosopher it suggested only the rapid annihilation of all individuality.

"Why," said he, "look at those ramparts, those casemates, that solid mass of masonry, that air of power and self-supporting individuality. Just think how a pair of modern big guns here on the river would pulverize, atomize, wipe out all that in a day's cannonading, leaving it a shapeless mass of ruins! You call

pher was growing excited, and seemed likely to go out on deck with his cravat under his ear and his shirt outside his trousers, which I didn't think would be proper in a foreign land, where they might not understand a little thing like that.

Soon we crossed the river, and, spurning a crowd of hackmen, made our way to a *caleche*, and were in it swung and swayed up the steepest of streets to the St. Louis Hotel.



A GROUP OF SEA TROUT.

that progress? I call it the prostration of individuality, the reduction of heroism to horse power, and personal prowess to dynamic forces artificially controlled. How is a raw recruit who grinds out death out of a mitrailleuse to be compared with a Montcalm, with a Putnam or a Wolfe?"

"Well, he can't," said I, "and if he could, I don't see what good it would do."

Now I said this chiefly because the philoso-

Driving in a *caleche* is a method of startling one's whole internal economy that I have never tried before. At times it seemed as if my liver had been suddenly shot through the intervening viscera and deposited under the fifth rib on the left side—at others, one lobe of my lungs seemed to drop down six or eight inches and come back to its normal position with a jerk that sent my back teeth wandering around my frontal cavities furiously, while now and again

I had to feel of myself to be quite sure that I had not exchanged entities in some wonderful manner with the philosopher. But it was a glorious morning, and we voted it great fun, the philosopher remarking that it stimulated one's appetite very much, as does a cocktail, which, he explained, was a Greek tonic he had met with in the course of his professional duties.

We breakfasted fairly well, and then proceeded to the serious business of ordering the necessary stores for our trip. In a general way it was a good deal like making out a list for Acker, Merrill & Condit, except that we enlivened the process by suggesting impossible things. I insisted upon a lawn mower and a sausage machine, while Matt gravely debated the advantages of taking a watering pot and half a dozen cuspidors. However, we compromised upon a croquet set and a pair of snow shoes, the philosopher remarking that, if it snowed, we should probably feel badly enough to play croquet.

Then there was some luncheon at the hotel, after which I drove in a *caleche* (for by this time I had become quite fond of guessing at the amount of curvature my spinal column could withstand) out to the fortress, citadel, or whatever it may be, and was shown about the old rattletrap by a very handsome and civil British soldier, who told me a wonderful lot of things which I have forgotten, and accepted my fifty-cent tip with an easy grace born of constant habit.

Then I had a look at the Plains of Abraham, and was reluctantly obliged to admit that they seem much like any other cow pastures. Nature refuses to retain the imprint of man's passions; her sweet grass grows on blood-stained fields, and her clover blossoms where a hero fell, as if to record a *cui bono* upon the grandest human struggles.

I asked the philosopher why this was so, and he promptly replied that it wasn't so at all—that in the cyclic economy of Nature there was no loss, only a constant return to the primitive—that this very grass may nourish the ox that shall assist in the nutritive evolution of some hero of struggles yet to come. (When the

philosopher gets talking to me in this unkind way I always go off to some secluded spot and snatch a few moments' repose. But we were in a *caleche*, and there are no secluded spots in a *caleche*, so I only sighed.)

I am bound to admit that the view of the river and harbor from the bastion of the fortress is exceedingly fine. My Celtic *caleche* driver was very communicative, and told much local chat about the bitter hatred of the French population for the English (or rather for the English-speaking) inhabitants, and the unpopularity of the Marquis of Lorne in comparison with the late Governor, Lord Dufferin. It is a fact that no end of things are named after Dufferin—Dufferin gates, Dufferin esplanades, etc.—but the only public or trade recognition of the Marquis that I chanced to see was "The Lorne," printed in large letters upon some packages of very thin brown paper. This was not intentional disrespect; it was only toadyism pushed to the verge of insult. "*Les extremes se touchent.*"

Nevertheless, the following morning, as I was quietly seated in the office of the hotel, I heard a rumpus, and saw clerks, guests, porters, hackmen, everybody (some of them away back in the building quite out of sight of the street), lifting their hats and bowing and scraping in ungraceful fashion. It was all along of the Princess Louise and her husband driving by in a carriage. They looked like very respectable people and had evidently been fishing, which was surely suggestive of gentle instincts, but I could not reconcile the apparent enthusiasm with which they were received with the prevailing tone of feeling toward the ruling governor. There can't be much sincerity in that sort of perfunctory enthusiasm, and I don't believe it is wholesome for one's manhood.

Quebec was our last hold on *terra cognita*, and from it we glided into the mellow mists of Nomansland. One dark evening, when the rain was falling fast, we were thrust out upon a muddy dock together with our belongings, and left there to struggle as best we could with darkness and *patois*. *Patois* is the great motive power in Canada. If a box or barrel is to

be moved, men gather around it and hurl *patois* at it with such astonishing volubility that the article is glad enough to move anywhere out of the way of such a babel. The bigger the box the more *patois* required, but the supply never seems to give out. Every little French Canadian, five feet high, holds an amount of *patois* equal to hundreds of horse power, and will make more noise doing less work than any contrivance yet devised.

osopher explained the restfulness that pervades the outskirts of vast communities. He said that the concentric force of civilization attracts disturbing elements toward its great centres, leaving God, Nature, Peace, Happiness, and truck that it cannot utilize, on the wide, wild circumferences, to be sought out and gleaned by anglers.

"Then I trust," said I, "that we are bound for a spot well on the periphery."



THE BAY.

Nevertheless, we finally rescued our traps and were conveyed in a hearse-like omnibus up slippery heights and down deep valleys, till the vision of a brightly-lighted hotel, full of guests, greeted us with the promise of supper and rest.

It was a grand, great horseshoe bay that sparkled in the next morning's sun, and its shores, lined with moored chaloupes, birch bark canoes, picturesque wrecks and quaint huts of native guides and fishermen, tempted us to an early ramble, during which the phil-

"Better than that," said Matt with a smile. "It is hung away out on a tangent."

"Hung by a chord!" queried I; but the philosopher frowned, as he always does on callow punsters, and remarked that that one was old enough to have come out of the Ark.

It isn't easy to realize that one is going anywhere in particular till one begins to go slowly. You can't tell from the appearance of a man in a sleeping car whether he is going to Albany or Anticosti. But the moment one travels four miles an hour, or thereabouts, his destination

becomes at once important to himself and apparent to others.

When we began to pack things in rubber bags and have them and ourselves slowly paddled out in a chaloupe, everybody knew that we were going fishing, and the fact dawned upon me, too. I had known it all along, but had not had time to think of it.

A chaloupe is a thoroughly good, small, seaworthy sloop, with the addition of a "jigger." I do not think it possible that any merely human being can quite comprehend and grasp the "jigger." It is to a chaloupe what a tail is to a dog. Nature has deprived human beings of tails, and a similar evolution in marine art has deprived the ordinary domestic sloop of the "jigger." Now, a dog will bark if you cut off his tail, and a chaloupe will sail if you eliminate its "jigger," but a chaloupe won't sail with its "jigger" alone any better than a dog will bark with its tail alone. Hence the "jigger," or wherefore the "jigger," just as you choose. I asked the philosopher about it, and he said that the "jigger" is a postulate, just as God is a postulate, and must be accepted by faith. To argue about the "jigger," he said, was the apotheosis of Canadian unorthodoxy.

Ah! but it was a gay, bright, merry sail out into and down the broad, spangled estuary, whose one distant shore, blue against the deeper blue, offset the other sharply outlined in bolder tints on our left. Fast going it was, too, thanks to the "jigger," or in spite of it, just as you like.

We passed some craft, and also some days and nights, and finally reached the mouth of a river—the Ponsnegon, ignored of maps, but laid down with the perfect limner's skill in the memories of two happy exiles.

### III.

The ascent of the rapid river in our birch bark canoe was rather exciting and fairly hard work for the guides, but vastly pleasant for the passenger who had only to enjoy the charming scenery and the delightful motion, with no thought of the work-a-day world upon him save that he must keep his balance true. We

lunched on the sandy bar of an island, and about 6 o'clock gained our beautiful camping ground on the left bank of the river.

To old campers-out like ourselves it was but a short affair, with the assistance of our guides, to pitch our tents (Matt's an ample wall and mine a modest 7x7 A) and put matters in such sheltered condition that no sudden shower could render us comfortless for days to come. This seemed very sensible to me, and I mentioned, with considerable pride, that, after all, from a purely philosophic standpoint, an ounce of comfort was worth a pound of trout; but Matt said, rather severely, I thought, that, though that might be very good philosophy for the 1st of January, it was not worth a cent on the 1st of August.

I never had any idea before that philosophy spoiled in hot weather, so it rather took my breath away.

Then my fellow exile proposed that I should have Louis (my own bright particular guide) canoe me over to the "home pool" just across the river, where a big turtle-back rock divides the stream into two rippling rapids, and try what I could in the way of providing a trout for supper. As I approached the spot and my flies began to drop nearer and nearer to the edge of the rock, underneath which big fellows are wont to repose in stately fashion, busy with nothing, and wise by reason of having no chance to display their folly (like a Legislature in recess), I confess to a queer feeling of what the English call "funk."

Matt, and David his swarthy guide, and Ulrique the son of said guide, were standing on the bank watching me with critical eyes, and Louis in the stern of the canoe was perpetually muttering incomprehensible things in bad French and worse English. As for me, I was overwhelmed with a distorted sense of the importance of the occasion, and would gladly, I believe, have turned about then and there, accepting with becoming humility my bacon and crackers for supper as fitting penalty for my faint-heartedness. A moment after, however, there was a sudden rush, a swirl on the dark mass of water just behind the break of the rapid, an involuntary response from my



rod-arm, and I was in the midst of a struggle that drove thoughts of all else far from me. I won the fight, and brought to net a trout that pulled down my sprig-balance to the two and three-quarters notch, and filled me with an exultation not reducible to *avoidsupois*. Then another, smaller, and we were summoned by much hungry applause to return.

"You might have taken more," said the

Next day the guides started early for the mouth of the river to bring that part of the stores left there on our way up, and the day was *non* as to sport, or rather as to fishing.

At breakfast the philosopher remarked (and he remarked it with the air of a man making, or about to make, a remark) that the world was largely divided into two objectionable classes: those who go fishing to fish and those who



SPRING HOLE CAMP.

philosopher, "but a feast is as good as enough."

And a feast we had, to be sure—dainty, satisfying and suggestive. My couch of *sapins* (spruce boughs) was deep-laid and fragrant in my tent well fumigated with the *boucan*\* (rather pretty name for a frying-pan filled with "smudge fire") and I fell to sleep with that charming sense of all things of earth merging into one sweet whisper of the tree tops, that, dwindling to a tired child's sigh, fades into a dream.

\* See note at end of sketch.

don't. As nearly as I could get at it he meant that some anglers must be always hooking a fish, landing a fish, weighing a fish, or unhappy: while another class are content to play cards or read novels all day in their tents while the trout are leaping at the flies—the flies of the tent, I suppose—and don't care a fig.

By way of striking a happy medium, we spent the day improving the arrangement or the camp, which had been rather hastily constructed. Matt's tent, for example, had been put up so askew that he said sleeping in it made him feel lop-sided, and went through

various contortions to get the kinks out of his body.

The woods are full of crooked sticks (as every old maid knows), and to a camper-out crooked sticks are a perpetual joy. Every one of them is specially designed to hang something on or in, and no rare plant gathered ever gave greater pleasure to disciple of Linnæus than does the finding of just the proper crook of a branch which will nicely fit the butt of a rod or the stem of a pipe. It is astonishing how, by this and other methods, a 7x7 A tent may be made a beautiful as well as a convenient abode. Forty-nine square feet of solid comfort are better than a house and lot on the avenue with defective plumbing and a cross, red headed cook.

In most respects we were reduced to use of such material as the forest afforded, but had the great advantage of good plank floors for our tents, which served to keep them both dry and clean—that is, with careful drainage. The trouble of making a good drain about a tent is often considerable, but it pays regular dividends in comfort, and you can spend every rainy day cutting off the coupons.

There is one pleasure in the woods that does not seem to me to have been made half enough of in song and story. I mean the pleasure of feeling that you can conscientiously make a blamed fool of yourself. There is so much dignity in a forest of firs and spruces and pines that a bit of pure idiocy is rather a relief. Many a man who wouldn't think of smiling at a children's party will actually make puns at a meeting of bald-headed directors, and on the same principal of general averages a parson is quite likely to stand on his head when he finds himself in a primeval forest.

Personal dignity becomes grotesque compared with the tapered grandeur of lofty larches.

This was our first Sunday in camp, and it was duly determined that our dinner should partake of the nature and semblance of a banquet. Out of the bowels of the earth we dug partridge soup and rare old wines and

condiments galore—they had been *cached* there in cans and bottles a year before—and much wood was gathered and much converse had with David touching the art of cooking in the open air. Just before the dining hour, however, a sudden shower drove us to our individual tents, and I spent the time dressing for dinner.

Three cuts of a knife served to convert a sheet of birch bark into a "dicky" shirt front. A large corn plaster made a capital solitaire diamond, with dazzling rays painted in bright yellow water colors. Water colors, too, soon produced a white collar and necktie, and cuffs, that a French dude might have envied were constructed of birch bark. Then, with my fishing coat tails pinned back to suggest a dress coat, my hair parted in the middle, and an old pair of kid gloves on my much-bitten hands, I presented myself *en grand tenue* for the feast.

The philosopher said it was deeply, darkly idiotic, and he couldn't understand why it made him laugh so, but finally concluded that it was due to some latent principle of incongruity, which seemed to me tolerably clear for philosophy.

Then came the rain in masses that tested the water-tight qualities of all our tents, coverings, wraps, drainage, and even sought to permeate the very marrow of our bones and the dauntless spirit of our souls.

Night after night the dull thud of drops played a dismal tattoo upon the strained surface of our tent-fly, while during the day we watched in Mackintoshes and misery the flow of swollen yellow waters whirling past furiously enough, it seemed, to purge the stream of trout, as well as of every other living thing.

It was during this period that I became aware of the superiority of professional over amateur philosophy. For days, while the proverbial windows of heaven were not only open, but the sashes taken out and the *stops* thrown away, Matt. Meredith calmly refilled his pipe at stated intervals, placidly inhaling ozone from Ouida's novels, briskly strolling through the exhilarating realisms of Alphonse Daudet, or aimlessly meandering among the pathless



vistas of Anthony Trollope, with unruffled brow and a don't-care-whether-school-keeps-or-not air, which is not to be attained save by some process of psychic development equivalent to much prayer and fasting.

In camp one becomes an integral part of one's guide, or *vice versa*, and feels remorse when he makes a fool of himself. One night my Louis was performing the sacerdotal service of smoking the insects out of my tent with his *boucan*, and with that happy faculty of doing things stupidly acquired by constant usage, he had placed the *boucan* on the birch-bark strip near the tent door which served as a mat. Then he proceeded to gaze at the stars and in other ways to employ his powerful mind and distract his acute attention to the total ignoring of his flaming *boucan* and all else mundane. The *boucan*, taking advantage of the opportunity, blazed up, set fire to the birch bark strip in a sportive way, and was rapidly creating a dangerous conflagration when Matt. chanced to notice the blaze, and, by a prompt display of pyrotechny, averted disaster. A moment more and I should have been shelterless and bedless for the night; but the philosopher explained that an event arrested in the process of evolution is always unworthy of grave consideration, and declined to speculate upon the serious consequences of what *might* have happened, but did not.

Then there came a morning when a broad band of sunlight belted the east side of my tent, and was greeted with a shout echoed most heartily from the philosopher's "wall." Nor was it a dawn of false promise either, for the day was a lovely one, with high-flying, fleecy clouds, crisp, fresh air, full of vitality, and through and over all a flood of strong, warm sunlight.

In the morning we fished up the stream—which I like, because it involves exercise and wading and personal exertion—and in the evening down the stream, with rather indifferent success, if, indeed, success in angling can ever be indifferent to the angler.

The following day was quite as bright and breezy. We took, all told, 26 trout, weighing 28 pounds. The largest, falling to my share,

weighed  $3\frac{1}{4}$  pounds, and was so beautiful a specimen that I made a tracing of him in birch-bark, life size, and accurate as to measurement and markings.

We had a thermometer and sun dial in camp, the latter of which I constructed with a jack knife from the cover of a claret case. Both are useful, and it was interesting to note that for the first ten days on the river the temperature during our walking hours never fell below 65 degrees, nor rose above 75 degrees. Certainly a comfortable average for August weather.

In the matter of averages, a more interesting one was afforded by our carefully-kept fishing score. For example, on a given day, my companion fishing down stream and I up stream, the scores at night stood as follows: M. took 29 fish, weighing 480 ounces; average, 16.202 ounces. I took 20 fish, weighing 324 ounces; average, 16.200 ounces, a difference in the average of only two one-thousandths of an ounce. For the ten days of fishing up to and including the day, M.'s average was one pound three and one-tenth ounces, and mine one pound and three and two-tenths ounces. These are dry details, but the angler who cares *nothing* for his score is as little a true angler as one who cares *only* for his score.

Near the middle of the month, on a day that was bright with that glittering brightness that, in my experience, rarely means good fishing, we started together at an early hour down stream, bent on making a serious day of it, but my companion deserted me soon for the upper stream, thinking it best thus to increase our chance of fair sport. I did not do exceedingly well, but I had an adventure worthy of record. Anglers always lose the biggest fish of each day's catch—a fact so well known that it did not surprise me on this day to lose my biggest fish; but, alas! to what an extent he would have increased the average of my score could I have saved him! I was not at the time fishing with great energy. I was, in fact, rather idly trolling my fly across the head of one of the swiftest and most rocky rapids on the stream, watching meantime the swift white clouds driving past the spruce-lined hills

that towered above on either side. Suddenly I became aware of a "rise," and, with that involuntary impulse which becomes habitual, *struck* sharply in reply. I felt that I had secured my fish, and, quite at my ease, began the process of reeling him in; but, to my surprise, nothing yielded to the pressure put upon the clicking reel, though the lithe rod bent with perfect arch, the line vibrating at an acute angle, and I felt the unmistakable tremor of some living thing transmitted through its tense length. My guide began the ascending gamut of exclamations with which he was wont to hail the hooking of anything better than a half-pounder.

"*C't un gros! C't un gros gros!! C't un salmon!!!*"

To all of which I replied, quite calmly:

"*Il ne bouge, pas Louis, il cherche les racines.*" Which wasn't very good French—a fact for which I consoled myself by considering how wrong it would be to waste any of the little good French there is upon a Canadian guide.

After a moment or two of patient waiting, I gave my rod a twitch designed to stir up my sulky prize a bit. *Buzz* went the reel; *whiz* went the straightened line through the water, making twice the circuit of the pool with such a startling swiftness as to leave me in some doubt as to my own relative whereabouts. Then all was quiet again. Another twitch of the rod to cure him of the sulks, and then and there was instantly inaugurated such a performance as one rarely witnesses, and which might aptly enough be called a *circus* (for there were many "seats around for the spectators," although they were empty). There were but two performers—Ben Bent and about a yard and a half of fish—the former flat in the canoe with his heels in the air, and the latter plunging like an unbroken colt across the limited horizon looming against the background of swift, rapid and unbroken hillside, an over-shadowing, monstrous mass. There was a resounding splash as he struck again his native element; there was a buzzing reel, a badly burnt thumb, an eight-ounce rod held quite

instinctively straight as the crow flies, six ounces of heavy gut leader dangling in the air, and the fleeting vision of some huge aggregation of heads, fins and tails hopelessly confused, turning indescribable somersaults down the foaming vista of the rapid, a picture seen for the briefest instant through the angular foreground of the writer's own heavenward-extended legs, but photographed indelibly upon his memory for aye.

Bent had hooked his first twenty-five pound salmon and lost him, and Benjamin had himself paddled on to the next pool with a freshly-realized perception of the relative proportions of fish to men, rods and birch-bark canoes that kept him in a state of profound humiliation for the remainder of the day.

I did not fail to make a memorandum of the fact that my monster had carried away with him a new and beautiful "Cheney" fly, the return of which I demand from any salmon-fisher who may chance to find it, even unto the end of time.

It had all along been part of our programme to make an excursion by way of the "long carry"—a portage of three miles—to the upper part of the river, where it serves to drain a large lake, and where the average size of the trout is much larger than below.

The morning of our departure was a gift of August in her most generous mood—warm, bright, breezy and blue, and the portage, for most of its length, was only pleasant woodland walking. The guides had carried over the canoes in the early dawn, and about high noon we embarked upon the lake, a beautiful sheet of water, three miles long and about a mile wide, with picturesque surroundings of rocky hills and distant outlines of low mountains beyond. Reaching the outlet of the lake, we paddled slowly down the stream through long, deep stretches and solemn pools, "shooting" a number of rough rapids and walking around some said to be more difficult, down which the guides were obliged to lower the canoes with long ropes.

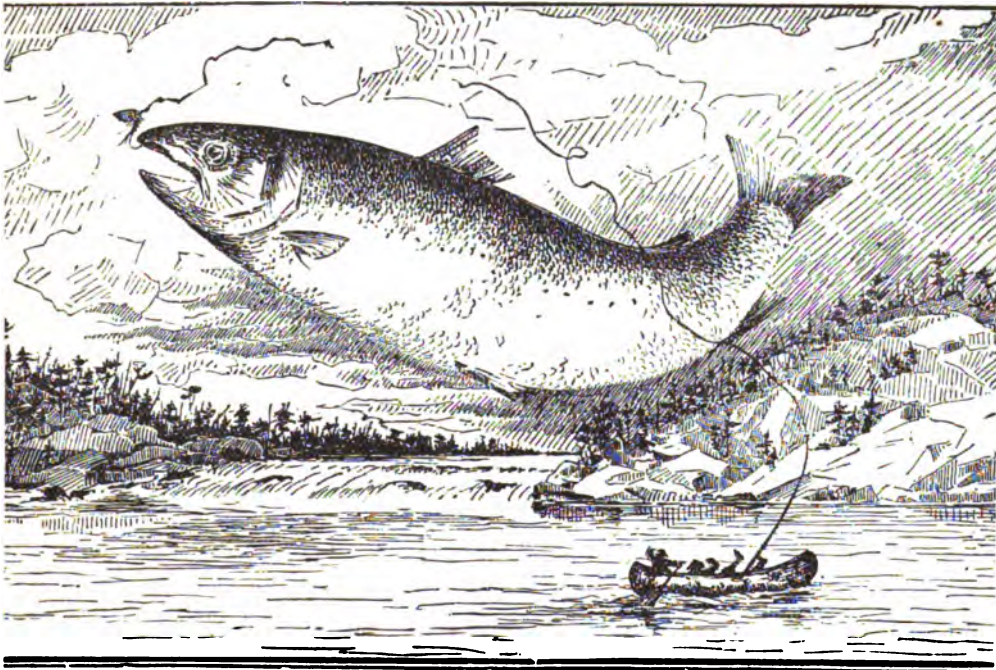
The camping ground we selected was delightfully situated on a high and dry plateau, with fine, large trees all about, and a many

trunked old birch spreading its shelter over us, and a shadow over the deep, dark, olive-tinted pool in front, where the waters, still struggling in the contest began in the boiling rapids just above, wrinkled its surface in a thousand graceful folds.

The philosopher took occasion to remark that, as an aggregation of pleasing physical conformations, conveying to the intelligence

and then we gave it up voluntarily, with my score standing ten fish,  $20\frac{3}{4}$  lbs., and Matt's nine fish,  $18\frac{3}{4}$  lbs., being an average for me of 33.2 oz. each, and for him, 33.3 oz. each.

We had taken with us only one tent—extra large A—and in this we passed a night of dreamless slumber. The day following was one of alternate showers and sunshine, and with a score for Matt of six fish weighing  $15\frac{3}{4}$



AS IT APPEARED.

an abstract impression of peaceful beauty through the perception of concrete natural developments by the senses, it was eminently successful—and then I went out and wept bitterly. We called it the "Spring Hole Camp."

Such sport as we had was a thing to dream of. The lovely day just closing; the calm, soft light on the broad waters; the constant music of our reels, as the big beauties swept hither and thither through the ample pool, fighting for every inch of line they dragged with hiss and swish behind them, framed a charming memory in our minds. Two hours of it only,

lbs., and for myself a score of seven weighing  $16\frac{1}{2}$  lbs., one of  $4\frac{1}{2}$  lbs. falling to his share and one of  $4\frac{3}{4}$  lbs. to mine (the largest of my record, and taken on a "Ben Bent" fly), we concluded that we had worn out our welcome, and the next day started down the stream for the home camp, where we arrived just in time to see a surprisingly brilliant display of Northern lights sweeping across the sky in rolling masses, and hanging rosy curtains in graceful folds from the North Pole.

Next morning, away down below the black rapids I had pleasant sport, pretty evenly dis-

tributed through many hours, bringing home twenty-four, of which none were notably large. Indeed, it gratified me greatly to find that I still enjoyed angling for the smaller fry. The credit should perhaps be given rather to the fact that a trout weighing between one and two pounds, taken in tolerably swift water, other conditions being favorable, gives one more trouble to bring to net, and consequently more of the pleasurable excitement of angling, than do the big fellows who, when hooked, aim their noses at stones on the bottom and doggedly follow their noses.

Thus the days of August drifted pleasantly away, and our summer exile neared its close, till on one boisterous evening we found ourselves again on board the chaloupe, tossing homeward through the tumbling waters of the broad river, feeling rather gloomily that the sad owl's cry in the sombre forests of the Ponsnegon, and the low simmer of the rapids in the hurrying stream, would fall that night upon no listening ears, and that the prim spruces would taper, and the feathery larches bow in the electric light of the northern sky, alone in their stately beauty, of which we had carried away with us only pleasant memories as of old friends loved and lost, but not forgotten.

NOTE.—When I came to the point of writing the word *boucan*—rendered familiar by daily, or rather nightly, use for a month—I was surprised to find that I did not know how to spell it. Phonetically it was to me *bocanne*. Not content with a guess, I consulted my “Boniface,” but soon discovered that, in order to correct one's spelling by dictionary, one must first know how to spell the word, the spelling of which one wishes to correct. In short, looking for *bocanne*, I naturally found no such word, and never having met with it in the works of Gaboriau, DuBoisgoby, Ouida or Charlotte Bronte, concluded that it must be *patois*. It then occurred to me to put the question fairly, by letter, to the philosopher. This I did, and had by return post the following reply:

OFFICES MATTHEW MEREDITH.

PROFESSIONAL PHILOSOPHER AND PRACTICAL PHILOLOGIST.

[10 A. M. to 3 P. M.]

Attendance at the residences of ignorant persons out of office hours will be charged extra.

NEW YORK, January 19, 1884.

BENJAMIN BENT, ESQ.:

*Dear Sir:*—What you call “*bocanne*” is known in Canada as *boucan*, and in this they are, for once, pure French. The word means, of course, thick smoke, and is the origin of *boucanier*—*buccaneer*—taken from the practice of those West Indian pirates of raising a signal smoke. The resemblance to “beacon” I think is accidental; no nearer than that to the Greek word *pogon* (to be spelled with two of the largest o's procurable in any modern printing office), meaning “beard;” and which Æschylus uses to describe a “signal fire.” The expression is literally “a beard of fire”—from its shape, I fancy, rather than color.

Very truly yours, etc.,

MATTHEW MEREDITH,

P. P. & P. P.

N. B.—All orders for P. P. & P. P. reduced to writing, either by correspondence or otherwise, must invariably be accompanied by certified cheque or post office order, to ensure attention.

The “N. B.” was printed in small type, and seemed a mere formal business precaution, so I paid no attention to its import. Then I again consulted “Boniface,” who has it thus:

“*Boucaner*, V. N. [aller à la chasse des boeufs sauvages, etc., pour en avoir les cuirs.]

“*Boucanier*, S. M. [Aventurier qui fait la guerre aux Espagnols de l' Amerique; sorte de navire et de fusil.] A buccaneer; a cow-killer; a freebooter; fly-boat, sea-musket.”

He also gives: “*Boucaner des cuirs*—to smoke hides”—and seems to think that “to buccaneer” is equivalent to what we mean in modern slang by “going for one's hide” (for the purpose, of course, of *smoking* it).

Then “Fitz” writes, under later date, that, on looking at his old French dictionary (1802)—there is reason to believe that this date should be 1702—he finds “*boucan*” defined: “The place where the wild Indians broil their meat.”

*Boucaner*, "To broil fish or flesh as *boucaniers* are used to do." *Bucanier*, "A hunter of oxen in the West Indies; a name now given to pirates in those parts."

In addition to all this I find in a well-known book of reference the following:

"Bucaneers \* \* \* \* The name is derived from the Caribbee, *boucan*, a term for preserved meat, smoke-dried in a peculiar manner. From this the French adventurers formed the verb *boucaner* and the noun *boucanier*, which was adopted by the English. While singularly enough the French used, in preference, the word *flibustiers* (see *filibusters*), a corruption of our 'freebooter.'"

The value of this last authority is much impaired by the fact that a late note from the P. P. has the following:

"A derivation much discussed in Walker's time (not the lexicographer's) is that of the word 'filibuster.' I don't think it comes from 'freebooter,' which doubtless has its own origin and very different meaning. What was accepted at the time as the best meaning was that the word comes from '*flibustier*,' and that, in turn, from two Dutch words, *Vlie* or *Vly*, meaning a shallow inlet; and *boot*, a vessel."

From this the inference seems to be clear that, in so far as a buccaneer is in any sense a filibuster, or by analogy a freebooter, he is one who discovers flies in his boots.

Now a careful consideration of the somewhat voluminous data above leads me to three fairly luminous conclusions:

First. That, for the purposes of this sketch, *boucan* is a good French word used in Canada to indicate a frying pan (a compound word composed of the common word *frying* and the godly word *pan*) filled with "smudge fire,"

and used by guides to smoke bugs and mosquitoes out of one's tent at bed time.

Second. That the peculiarly dry and smoky appearance of Spanish flies (*cantharides*), as well as their property of "going for one's hide" when aggregated in the form of a blister, indicates that they were originally introduced into this hemisphere in a *boucaned* condition by the piratical adventurers, who, during the Sixteenth and Seventeenth centuries, maintained themselves on the Caribbean seas by systematic reprisals from the Spanish of these interesting *coleoptera*, which subsequently degenerated into mere piracy or bug-erneering, quite naturally corrupted later into our familiar "buccaneering."

Third. That any person who does not know how to spell, and has the moral courage to say so, may obtain much curious, valuable, truthful and gratuitous information.

POSTSCRIPTUM.—I had just finished the above, and, thinking the trouble all over, was complacently sitting with my feet to the fire, listening to the merry chirp of the thermometer as it ticked off the degrees below zero from its perch by the north window, when I received from the P. P. and P. P. the following, which seems to me to throw over the whole subject such a new and lurid light that I insert it intact and without comment:

#### BOTTOM FACTS FROM LITRE.

BOUCAN.—The place where the Caribs (Caribbeans) smoke their meat; the wooden grating on which they smoke it.

In popular and very low speech boucan is used for "a row," and sometimes for a brothel.

BOUCANER.—To smoke dog meat, or fish (ha! ha!); to hunt wild oxen or other animals for their hides.

BOUCANIER.—One who pursues hunting for wild oxen; (secondarily) the pirates who infested the Antilles.

BOUCANIERE.—A woman of as abandoned a life as that of a buccaneer could be. Used only in speech that is absolutely without restraint.

## NOTES AND QUERIES.

[Under this Department Heading queries relative to Angling, Ichthyology and Fish Culture will be answered.]

### "Opening Day."

When the April issue of *THE AMERICAN ANGLER* is read, the "opening day" for trout fishing in New York and many other States will have dawned. It will be ripe with diverse experiences, qualified by the waters fished and the climatic conditions existing, but we question the amount of actual sport that any angler will get if the day be not exceptional, with the balm and sunshine of an early spring. For years past "opening day" in the Middle and Eastern States has been bleak, snowy or tempestuous in more or less degree, and the fish loggy and unattractive to the angler who gathers from the surroundings of an outing and the gameness of the quarry his greatest enjoyment. It is amidst the sheen and shadows of the opening foliage, and the rippling greetings of the stream, that the poetry of "the art contemplative" is developed, and no angler can feel responsive to its charm when his teeth chatter, his limbs stiffen with cold, and his fingers in their rigor, like bars of iron, fail in their grip of the hand piece. And then, again, the trout—what sluggish, chilled things they are, coming to the fly slowly and lazily, and sucking it in so leisurely that an angler, slow as a snail in movement, would never miss a rise! Nevertheless, brother angler, you'll go a-fishing on "opening day" if the "skies fall," and we don't blame you much.

The Pennsylvania Fish Protective Association gave a reception to the Pennsylvania Fish Commissioners at their rooms, 1,020 Arch Street, Philadelphia, on March 29. As we go to press on the 25th of each month, we cannot furnish a report of this, no doubt, delightful reunion.

### The Tarpon Record --How Long Do They Fight?

Under "Notes and Queries," page 283, of the March number, appears your excellent article on "The Tarpon Record." Being not only a constant reader of your paper, but a persistent angler as well for this lordly king of the waters, I feel (as many others no doubt do) a deep interest in the early settlement of this question. For myself, unfortunately, I can lay claim to no fish that rivals even that of Mr. Heckscher—although, come to think of it, I do feel a sort of Christopher Columbus right in his tarpon, inasmuch as I was *there* and *discovered* his fish, and remarked on its size as he several times "flashed his fin" between our boats, sometimes nearest to my bait, and again nearer to Mr. H., but I didn't catch him, the other man did, and so, like Mr. Columbus, my name was "not in it," but I digress.

Now, upon this main question of fact as to the actual weight of Mrs. Stagg's big tarpon, I can give no information. There are, however, other questions raised in your article which, I think, I can answer in Mrs. Stagg's favor. First, as to time of landing fish. It is very unfair to Mrs. Stagg, prior to any direct statement from her, to question the average time of capture. It may seem short to Mr. Stonebraker, judging from the two he mentions as having taken, but I venture the assertion that Mr. Stonebraker has not captured very many more, else he would know surely how much longer some fish fight than others. My observation is that in two cases out of three, where the angler is experienced and the boatman knows how to gaff his fish, the tarpon will be landed inside of thirty minutes.

My theory is that, in nine cases out of ten,

the fish is hooked in the throat and bleeds to death. The mouth of the tarpon is so hard that no hook, however sharp, will catch in it. If given plenty of time he swallows the bait, hook and all, and in attempting to expel the hook it catches in the throat at this vital spot. In proof of this theory, the tarpon is nearly always seen to eject blood when he first leaps. In the event that the fish is hooked where he does not bleed, I think he fights a long time, anywhere from one to four hours.

On April 1, 1888, H. M. Kraemer, at Pine Island, caught a tarpon about six feet long, and weighing between ninety and one hundred pounds, and, after six leaps, had him gaffed and in the boat in three minutes; being yet lively, though bleeding profusely, he flopped out, was played seven minutes more, made six more leaps; total time of capture, ten minutes. Two days thereafter, to wit, April 3, 1888, J. V. Lewis, in same waters, hooked a tarpon only two inches longer, weight, one hundred and twenty pounds, which he fought three hours and five minutes, and becoming exhausted, gave the rod to Capt. Randall, U. S. N., who played him one hour and five minutes; total time of capture, four hours and ten minutes (he surely didn't bleed any).

Since writing the above I have referred to my note book of March, same year, and I find as follows: Of thirteen tarpon caught in about two weeks, three by myself and ten by seven others, the average weight was 104½ lbs., and the average time of capture thirty-two minutes. By the law of averages this proves Mrs. Stagg's record as to time. By the way, it occurs to me to say that, in my experience, the largest fish are not the hardest fighters, those from 100 to 125 lbs. being the active, leaping and long-winded fellows.

I was in Florida last year, leaving the second day after Mr. and Mrs. Stagg arrived. I know the fishing was most excellent in April, as I took three tarpon in three days, one each day before I left. I can well under-

stand Mrs. Stagg's hesitancy to appear in print on this subject, as she goes to Florida with her husband for health, and not to make fish records. An experienced angler, enthusiastic and skillful, she is also a lady of refinement, and possesses the "charming modesty" of her sex. That she is competent to make this score as given, I do not doubt. As to the weight of the big fish, I hope she will find means to inform us.

R. M. S.

*Kansas City, Mo.*

In regard to the "Tarpon Record" on page 283 of the March number, you say you have been unable to hear from Mrs. Stagg. The large tarpon that you spoke of has been mounted, and is now displayed in the wholesale wine and liquor house of J. V. Northam, 180 Monroe Street, of this city (Chicago). A card is attached to the glass case, reading: "The largest tarpon ever caught with rod and reel. Caught by Mrs. George T. Stagg, of Frankfort, Ky., in the Caloosahatchee River, Ft. Meyer, Fla. Length, 7 ft. 3 in.; weight, 205 lbs.; time, 1 h. 25 min. Caught May 2, 1891." The case also contains the rod, reel and line on which the fish was caught, and it is proposed to exhibit it, handsomely mounted, at the World's Fair.

G. H. H.

*Chicago, Ill.*

Mr. K. R. Owen kindly sends us, through Mr. Graham H. Harris, of Chicago, an extract from a private letter from Palm Beach, Fla., written by H. Carroll Winchester, of Baltimore, M. D.:

"I have caught a tarpon weighing 187 lbs. 8 oz., on a light rod. I was one hour and thirty-seven minutes landing him. I caught him at St. Lucie, on the Indian River, about eighteen miles from here. The same day I caught a Jewfish weighing 387½ lbs., but they are not very game. I catch all the red snappers I want, also bluefish and groupers."

It will be seen from the above letter that Mr. Winchester is "high hook" on tarpon until the weight of Mrs. Stagg's 205-lb. fish becomes officially recorded.



### Fly Fishing by Night.

As the subject of "Fly Fishing by Night"—"Moonlight and Trout"—is exciting considerable interest, we supplement what has been written by our correspondents by giving the opinion and methods of English anglers. W. J. Bullock, an accomplished angler, now deceased, wrote to the *English Fishing Gazette*:

"It is not often that you cross the path of a brother angler who has enjoyed that luxury of sport that is derived from night fly fishing. The very idea of turning out at 11 P. M., to grope your way about in the dark, is quite enough for most piscators. Others call it poaching. So it is, and so is daylight angling, when 'French leave' is taken. When I go night fishing it is not poaching, as I have full permission to fish at all hours, and therefore poaching, in my case, is out of the question.

"No doubt the thorough enjoyment of the night fly is an acquired taste, but it is wonderful how quickly it fascinates all who witness it or try it. The darkness, the beauty of the heavens and solemn silence, the novel sensations, and hearing and seeing half a dozen fine trout come out with a rush and flying off at a tangent ten or fifteen yards in the meadow behind, all form such a strange contrast to day fishing that its very novelty is pleasing.

"Now, the best time for the night fly is when the water is lowest, and when fishing by day is the very worst. Our fly is thus made to imitate the white moth. Take a hook same size as an average salmon fly, then tie some white feather from a white goose quill, making your body with a waxed thread and finishing the fly at head. When complete it will resemble a full-sized salmon fly, except in color. It is requisite to have eight or ten flies in reserve, as you must often leave one on a bush. A strong rod, some sixteen feet long, with plenty of spring—one that will bring a one-pound trout out bang over your head—a reel and strong line are also a *sine qua non*.

"You do not want to fish many places, so

it is wise to take the bearings of the water, the bushes, etc., by day; and it is only the deep, still water and quiet pools that are worth fishing. Water about one to one and a half yards deep is the best, near to deeper parts, and this is the usual feeding ground. It is of little use fishing on bright starlight or moonlight nights; nor also when it rains. A dull, warm, still night, with no breeze, is best. The time to start is, after finishing your pipe and night cap, you send the ladies and household to bed. You take your rod, with your flies in an envelope, your bag of big lob worms, and in a few minutes you are standing on the old bridge of Eardisland. You won't be there long before you hear three or four trout smacking their lips, with now and then a regular plunge at the white moths you see flying about. All this time you are soaking your gut in your mouth.

"Just above and below the bridge is a lovely reach of still water, where, by day, not a trout is seen, but now, possibly, there are a score come down from the deep water above or up from the mill pond below. With a line at least a yard shorter than your rod, and with half of a lob worm put on the hook up to the wing of your fly, you throw across the water, your fly landing with a flop each time. You never allow it time to sink, but at once draw it steadily along the surface, and, if it is not too dark, you will see its course marked on the water by small waves. The trout sees this and boldly rushes to the spot; you feel a slight pull, at times a full rise, and here a steady nerve and a loose wrist are of the utmost value.

"As you draw your fly along the top of the water, the wrist first intimates to the brain the touch of a trout, and then, with a swinging action, out you throw him over your head. If you begin to play him at night he will be in some hole before you are aware. The boldness with which trout will swallow the fly and worm is simply astonishing at night, compared with their bashfulness by day. The great difficulty of all is to get the wrists and brain to act simultaneously, for not a second

must be lost when the tug takes place. Although your bite was scarcely felt, yet out you throw, and when you handle your trout you'll find he has the hook right down his throat.

"The bigger the trout the more gentle he bites, but half-pounders come more boldly. The head half of the worm is the best, leaving the head covering the hook's point, and large-sized worms are better than small ones. With this mode of fishing I have frequently killed three or four brace of fine trout in holes and places where, during the day, you will never see a fish, except, perhaps, one or two dashing off the shallows of an evening. A one-pound trout at night looks much smaller than by day, and when you get home and spread your five or six brace in the larder and see them by candle light, you will be agreeably surprised to find your fish average four to six ounces more all round than you expected."

Mr. R. B. Marston, editor of the *Fishing Gazette*, wrote us a private letter some years ago, from which we quote:

"You may be right in regard to moonlight nights and light tackle so far as American fishing is concerned, but I can assure you that in this country a dark night is preferred by the night angler who wants fish. I agree with you that fishing on a moonlight night with light tackle is preferable from an æsthetic point of view, and I prefer it myself. But here, if your object is big fish and a good dish, you must try on dark nights."

I notice in your January number, in "Notes and Queries, the remarks about catching brook trout in the night, and the question: Do trout feed in the night during the full moon? In answer I would say no. Can you catch them better during the full moon? To this I would also say no. The best time to catch them at night is early in the evening before the moon rises, or after it sets in the morning. Only in the darkest night do trout bite best. They don't feed on the same

ground at night that they do in daytime. You will find them in shallow water above a pool or below, where it is best to use a dark fly, and, getting close to your fish, make your cast as delicately as in daytime. Never use bait with your flies. I never have had luck with a white miller.

BRADY.

*Detroit, Mich.*

#### Best Time for Black Bass Fishing.

"Red Coachman" queries:

What month in the year is considered the best for fly fishing in streams for black bass? Are they like trout, and rise best when the leaf is bursting the bud, and when the water first begins to get warm?

We have taken black bass with the fly when chub fishing in March. At that time they seem to be stupid and loggy, very much like the trout when taken in ice-cold water on a blustering opening day. From our own experience we think the best months for stream fly fishing for black bass are June and September, yet we have been successful during the intermediate months, and one season as late as November 15, at which time the bass rose viciously to the fly and fought hard.

#### A New Salt Water Club.

Several gentlemen have recently formed a club for salt water fishing and recreation. The number of members is limited to fifteen, and it is designed to build a comfortable club house on or near good fishing grounds within an hour's ride of the City Hall. The price of membership is \$50. The impression conveyed to us by one of the original members is that the club, while being select in membership, will be run on the good old plan of perfect fellowship, with economy as the basis. A few vacancies exist, and if any of our readers want to know more about the matter, we will be pleased to place them in communication with the managers of the club. Address editor AMERICAN ANGLER, 110 Duane Street.

## Fishing at Chautauqua.

Here lads and lassies ply the oar;  
 'Tis here they hasten by the score,  
 And, in a gaily painted boat,  
 'Tis here they often idly float,  
 And hear the old, old story told,  
 By lovers who, becoming bold  
 When out upon the limpid lake,  
 The opportunity they take  
 To breathe their vows in willing ears,  
 And settle all their hopes and fears.  
 "Will you, my darling, bless my life  
 By promising to be my wife?"  
 "I will, if papa thinks it's right.

\* \* \* \* \*  
 Stop! Charlie, stop! I've got a bite!  
 Oh! if it is a monstrous fish,  
 Why, then, at last I've got my wish."  
 "Now, Maude, my dear, your angling stop."  
 "There, Charlie, your remonstrance drop.  
 You're angling only for a lass;  
 I'm bound to catch a noble bass.  
 There, don't so disappointed look;  
 You cannot tell *what's* on my hook.  
 My! how he pulls! Do take the line  
 And land him, *sure*, if husband mine  
 You have the slightest wish to be.  
 Don't lose him, if you value me.  
 I really do begin to think  
 I'd rather see you in 'the drink'  
 Than lose that fish. Just see him plunge.  
 Oh! if it is a *muscalunge*,  
 How proud I'll be to take him in:  
 The girls shall know I've fishing been.  
 See! *There he goes!* Now, Charlie, dear,  
 If once again he comes so near,  
 Just strike him with this ready 'gaff.'  
 Oh! if we get him, I shall laugh.  
 That's right! *You're got him!* Land him  
 quick,  
 And hit him with this bit of stick.  
 He'll weigh ten pounds. I *think* he will.  
 Why, Charlie, dear, you're very still.  
 Why do you look at me so queer?"  
 "Miss Maude, I think it's very clear  
 You'd rather catch ten pounds of fish  
 Than a lover true. Then let me wish  
 Good luck when e'er you angling go.  
 But *I'll* not bite again. Not if I know  
 Myself and heart. You're a pretty bait;  
 But as to marriage—well, I'll wait,  
 Nor into matrimony plunge,  
 'Till I'm worth *more than a muscalunge*.

A. S.

## Brown Trout in American Waters.

I notice in your issue of January an article which, if true, is a reflection on our new fish, the brown trout, which is being introduced in our waters by almost all the State Commissions. Now, because he grows so large,

should we exclude him? Is it not the glory of every fisherman to catch a large one? If we catch them out with a seine (as our friend suggests), where will we lay the foundation for all the great tales told of the large ones getting away? If one of our brown trout should be caught with a few fingerlings in his stomach, we would think little of it out West, for we often meet a fish-hog who has in a basket from fifty to seventy-five fingerlings. We have the brown trout in some of our Western rivers which are now two years old, and when they are open to fishing I hope some of our New York friends can come here, and we will take pains to show them where to go. We hope to hold at home some of our few salmon fishermen who go each year to the wilds of Canada.

BRADY.

*Detroit, Mich.,*

## Notes from Tacoma, Wash.—Immense Salmon Run.

As usual, Green River was my favorite haunt last summer, and, though I only visited it four times, those four times were so full of delightful sport that I live in its memories yet. I was unfortunate, on each of my trips up there, in losing a big fish, and, strange as it may seem, it was the same identical fish every time. He had his home under the root of a giant fir stump that stood out in the river. Above the stump the water formed an eddy about six feet deep, and across the bottom laid a huge log with about a foot of clear space under it. My fish always made for this hole, and generally succeeded in getting one of my flies caught on the log as he passed under, and you know the rest. The last time I grew cautious, and waded down the stream nearly to my arm pits in the swift water. My most alluring fly—a royal coachman—was put on for his especial benefit, and, as I made a short cast, he came up from the depths like a shot, and I was just a little bit frightened at the way he saluted me. Right out of the water he leaped, and took the fly as he went down, and at his old tricks he went. In

spite of the efforts I made—the tip of my six-ouncer almost kissing the butt—he got under that darned old log again and “broke away.” I didn’t swear—that is, I didn’t swear very much—but, like the fellow who tumbled out of his boat while shooting ducks in October, I thought a “tarnation lot.” Well, well, I’ve got my brand on that old fellow up there, and I claim him as my individual property for this summer.

The trout laws of this State open on May 1 and close November 1. The best fishing in Green River is in July and August.

There is a small land-locked lake about fifty miles from this city—has neither inlet or outlet—that is literally packed with trout. I first heard of it through an ardent angling friend of mine, who fished it last May. To use his own words:

“It is, without exception, the prettiest bit of water I ever fished. It’s only about three miles around its shores and about a quarter across. The shores slope gently to deep water, so that you can wade fully fifty or sixty feet from its banks on a hard, gravelly bottom. When I made my first cast the water fairly boiled in the efforts of the fish to get the flies. I landed two fish. Put on three flies and landed three; put on four and five, and on each fly I killed my fish. The trout were very game, and one very noticeable thing about it was, they were all of one size, about eleven inches. I caught 160 lbs. in three days.”

Up at Lake Crescent, near the north end of the Olympic range of mountains, is another fine spot. The trout are large and vicious, and test the tackle to its utmost.

Last fall witnessed one of the greatest salmon runs ever known here. They were the hump-back species, would not take spoon, bait or fly, and were caught either in nets, with spear, or in the naked hands. I alone caught thirty-five one evening by simply putting my hands in the water and catching them through the gills. I saw them frequently leap into rowboats that were being rowed

about. They were caught in myriads, and sold on our streets at one cent each. The fish would weigh from six to ten pounds.

One day I went up the Puyallup River, near here, to fish for salmon trout. I used the roe of salmon for bait, and fished on the sandy bottom of the stream. My pipe was in active operation as I sat listlessly on the bank in deep reverie, from which I was awakened by the hum of my reel, and, before I knew it, most of my line had disappeared, going up stream. The fish turned, and, with the force of the current and his own efforts, he came down like lightning, and I started on a mad race down the sand bar to check him, and at the same time save my line from being snapped. Up again he turned, and then down he came. Four times was this operation gone through, and I was blowing like a porpoise, and about as nearly played out as my fish. I finally got him into my net, and found it to be an old hump-back salmon. My hooks had fastened themselves between his pectoral fins as he was rooting in the sand. Eight or nine different times did this occur that day, and all in the same way. None of them took the bait, but the fish were so plentiful in the muddy water that it seemed utterly impossible to make a cast without hooking one. I had lots of fun, but did not care for the fish, as they are useless for the table after being in fresh water a while.

The silver salmon followed the hump-backs in their spawning season, but the run was light, and I did not bag over thirty during the run.

Most of this winter we have had good sport with the tyce or winter salmon. They would take a fresh herring readily, but would not look at a spoon. They are savage fighters, of good weight, and afford splendid sport. The season closed the first of this month, and will not open till June 1.

My next amusement will be black bass and sole fishing, with a change to crab netting, till the trout season opens.

We have had several parties arrested lately

for having trout in their possession. The trials are going on now, and we hope to be able to convict a few of these violators and put a stop to illegal fishing.

JOHN LEASURE.

#### The High Grade of Angling.

Several years ago I each week watched the coming of the mail. I was eager to get my ANGLER. But for a time I had to drop it, because I had no fixed place of residence. Lately I have had the privilege of again perusing my favorite. I don't "hardly know for sure" whether I like the change from a weekly to a monthly or not. A month is a long time to wait "between meals."

The change indicates a determination to place THE ANGLER on a higher basis. And the contents of late numbers show a careful editing, with the purpose to elevate the literary standard of the only publication exclusively devoted to angling, a sport that certainly should stand as high in the estimation of cultured people as any other. Its pursuit is quite as likely to lead one to scenes of interest and beauty as any kind of outing, and the degree of skill required to enable one to become an expert is fully as difficult to acquire as in any sport. There are probably fewer really skillful fly casters than experts in any of the sports now so popular, and the mechanical skill necessary to produce first-class angling implements is of as high a character as is needed in the manufacture of implements employed in any out-door amusement.

There is one point of difference between it and all others. For example, in all cases the result of a shot by the hunter becomes almost instantly known. The marksman knows at once whether he has hit or missed. Having hit, there is generally but little uncertainty as to the securing of the game. But in angling for large fish with light tackle—and no true angler will use any other—after the game is struck there is always a great and very exciting uncertainty in regard to the final result. This adds much to the zest of the sport, and

is, I think, a feature peculiar to angling.

Can any experience be more thrilling than to feel the quick "strike," the peculiar quiver, unlike any other physical sensation, produced by the movements of salmon, bass or trout? To watch the graceful bend of the light, but skillfully made and trusty rod; to realize that neither rod, line nor leader can by simple strength hold your game, but can only restrain him until his vigor is spent; to know just when to check his swift rush toward some dangerous spot, where, if he shall reach it, you will surely lose him; to ease off and give him line at the right time; to always hold your rod so that it will best bear the strain, and after a struggle, always of doubtful termination, and lasting from twenty minutes to several hours, at last conquer and lead him, utterly exhausted, to gaff or net. Can anything in the ordinary experience of the hunter exceed this or call for greater skill? Does any sport cultivate a man's adventurous spirit, or become a better means of physical recuperation?

The oft heard assertion that anglers are specially disposed to indulge in mendacious statements is a greater lie than fisherman ever told, and more vicious, because a foul slander.

A. S.

#### The Magaguadavic Club.

A number of gentlemen recently met in Boston and organized the Magaguadavic Fish and Game Club. They will apply for incorporation under the laws of New Brunswick, and hope to become as flourishing as other sporting corporations have become that started in quite as modest a manner. The capital will be fixed at \$20,000, consisting of 400 shares, of the value of \$50 each, but the balance of the first 100 will be offered at \$25. There are now fifty-eight disposed of.

The club house is already built, and is situated on the shores of the beautiful Lake Utopia, N. B. About 11,000 acres will be included in the lease executed to the club, while its control will virtually extend over

about 75,000 acres. The attractions are land-locked salmon and trout fishing, and a cool summer climate, with some shooting available in the fall.

Officers were elected provisionally, to remain in office until the club is incorporated, when it is possible changes will be made. Their names are: Dr. Heber Bishop, president; C. C. Powers, vice-president; Henry Lovejoy, secretary and treasurer; Messrs. Bishop, A. M. Robinson and L. D. Chapman, house committee; Messrs. G. W. M. Guild, W. L. Davis, John E. Avery, E. B. Whittier and N. H. Kimball, executive committee. Dr. Bishop explained that, owing to his interest in the Megantic Club, he could only accept the presidency of the Magaguadavic Club until it was firmly on its feet, when he would have to resign. The lease of the grounds occupied by the club will run for ten years, with right of renewal.

Walton & Cotton's "Angler,"

EDITED BY GEORGE W. BETHUNE, D. D.

This edition (limited to one hundred copies) contains copious notes, for the most part original, a biographical preface, and a note of Charles Cotton and his writings.

In putting forth this edition of Walton & Cotton, the original (Bethune) text of 1847 has been strictly adhered to. Additions have been made from Dr. Bethune's own private copy, correcting errors, and including information which at the time of its first publication had not been acquired. Typographical blunders have been corrected, and the new matter has received proper verification before printing. The original poem by Dr. Bethune, as well as the corrections of the first edition, have been furnished for this.

Portraits of both Walton and Cotton, newly engraved on steel, serve as frontispieces, while new plates of the Salutation and Landing the Trout, together with numerous famous woodcuts, render the text particularly attractive.

Of this large paper issue there remain forty-two copies which were catalogued by the publisher at \$30.00, and are now offered to subscribers at \$18.00, net. This edition contains a complete list of books on fishing as an appendix, together with works by, and ascribed to Isaac Walton, and a carefully prepared general index. The set in two volumes, is unbound, and enclosed in a neat cloth lettered portfolio, making a particularly handsome book, as well as one adapted to extra illustrating.

We can supply a few sets of the above named book at Publisher's Price, \$18.00. Address

THE AMERICAN ANGLER, 110 Duane Street, N. Y.

The Law for Trout and Other Fish in Pennsylvania.

The annexed correspondence explains itself:

PHILADELPHIA, March 18, 1892.

To the Editor of "American Angler," 108 Duane St., New York:

DEAR SIR:—From the numerous inquiries received from all parts of the State in regard to information respecting the law for taking brook trout, the Pennsylvania Fish Protective Association requested an opinion from the Pennsylvania Fish Commissioners concerning the same, of which the enclosed correspondence is a copy. As it may be of interest to your readers to be informed on this subject, we ask your assistance and submit it, with a request that it may occupy space in your valuable paper.

Respectfully,

EX. COM. PENN. FISH PROTECTIVE ASS'N.

M. G. SELLERS, Secretary.

PHILADELPHIA, January 28, 1892.

Henry C. Ford, Esq., President Pennsylvania Commissioners of Fisheries:

DEAR SIR:—In compliance with a resolution passed by the executive committee of the Pennsylvania Fish Protective Association, in session this date, I am instructed to communicate with you for the purpose of obtaining your views as to the exact laws of Pennsylvania relating to the open season for catching brook trout in the streams of Pike and other counties of the State, that the same may be published in various papers for the information of the general public.

Very truly yours,

MARION G. SELLERS, Secretary.

PHILADELPHIA, January 29, 1892.

M. G. Sellers, Esq., Secretary Executive Committee Pennsylvania Fish Protective Association, 1,020 Arch Street, Philadelphia:

DEAR SIR:—In reply to your inquiry as to the exact laws of the State in reference to the season for catching brook trout, I would state that the Act of June 11, 1885, prohibits the catching of brook trout, save only from the 15th day of April to the 15th day of July, under penalty of ten dollars for each trout caught. This act applies to the whole State, with the exception of Pike County, where, by special enactment of the Legislature of June 3, 1878, the season for catching trout is from May 1 to August 1. As there seemed to be some doubt as to whether this special act had not been repealed by the general act, the Fish Commissioners asked the opinion of the Hon. W. U. Hensel, Attorney General of the State, in reference to it. His answer was as follows:

HARRISBURG, May 27, 1891.

Henry C. Ford, Esq., President Pennsylvania Commissioners of Fisheries:

DEAR SIR:—I have your communication of the 23d inst., requesting my opinion as to the open season for trout fishing in Pike County. The Act of Assembly, approved June 3d, 1878, entitled, "An Act for the protection of game and game fish in the county of Pike," etc., Section 11, provides "That no person shall catch, sell or expose for sale or have in his or her possession, after the same has been caught or killed, any salmon or speckled trout, save only between the first day of May and the first day of August following." As the title shows, this is a special and local act for the protec-

tion of game and game fish in the County of Pike. The general act approved June 11th, 1885, entitled, "An Act to prevent the catching, killing, exposing for sale or having in possession speckled trout, except from the 15th day of April to the 15th day of July," provides in Section 2 that all acts, or parts of acts, inconsistent with the above are hereby repealed.

The only question, then, is whether or not the repealing clause in the Act of June 11, 1885, is so comprehensive or explicit as to repeal the provisions of the special act for Pike County. The Legislature having fixed, by a special law, the time during which trout might be taken in the county of Pike, in my judgment it would require the legislative intent to be manifested by an enactment equally clear and precise to repeal the prior special and local act. The general repealing clause would not affect prior legislation on the same subject matter, and the local act for Pike County would therefore continue in force.

Very truly yours,

W. U. HENSEL, Attorney General.

With the publicity given to this opinion of the Attorney General of the State, none can in future plead ignorance of the law. The Pennsylvania Fish Commission have instructed its wardens to arrest all parties fishing for brook trout in Pike County prior to May 1, and in the rest of the State prior to April 15. Very truly yours,

HENRY C. FORD, President,  
Pennsylvania Commissioners of Fisheries.

#### THE LAW FOR BASS AND WALL-EYED PIKE.

All persons desiring to promote the increase of fish in this locality will bear in mind that it is important that the laws providing for a close season shall be strictly observed, so that the fish may have time to spawn, and thus provide for a continuance of the natural supply, without which the waters will soon become depleted.

Fishing with nets and set lines is positively prohibited by the laws of the State. Penalty, \$100, with forfeiture of nets, boats, etc.

Fish weirs and fish baskets are prohibited by the laws of the State. Penalty, \$50 for first offence and \$100 for second offence.

The catching of black bass and wall-eyed pike under six inches, and trout and rock bass under five inches in length, is prohibited. Penalty, \$10 for each fish. The keeping of Penobscot salmon under three pounds weight is also prohibited. Penalty, \$50.

Trout fishing is allowed only between April 15 and July 15, except in Pike County, where the season is from May 1 to August 1. Penalty, \$10 for each trout taken out of season.

Black bass fishing is allowed only between May 30 and January 1. Penalty, \$10 for each fish taken out of season.

Rock bass, same close season as black bass.

Wall-eyed pike (pike-perch or Susquehanna salmon), same close season as black bass.

Fish wardens, constables or any officer of the State are authorized to arrest, without warrant, any person violating any of the fish laws. One-half of penalty goes to the informer.

Mr. A. M. Spangler, president of the above-named association, opportunely issues a circular letter, which we annex. It were well if

the Fish Commissioners of other States would do likewise. Information of a practical character is always valuable, particularly when it emanates from the highest source—the Commissioners:

#### DIRECTIONS FOR HANDLING AND PLANTING TROUT FRY.

Trout fry should be planted in small spring runs tributary to the larger stream in which they will live, until large enough to run into the latter.

If the water in the can is warmer than that in the run, the temperature should be equalized by mingling in the can before emptying, as the young fish are sometimes killed by a too sudden change of water.

If trout fry are transported a long distance from the station before depositing, a small piece of ice occasionally placed in the can will be useful, especially if the weather is warm.

The cans will be prevented from excessive heating if partly covered with a light cloth.

If the fry show signs of exhaustion coming to the surface, the water should be frequently aerated. This is best done by dipping the water from the can and letting it fall into it from some height, so as to force air into the water.

Not more than four cans of fry should be placed in a stream eight to ten miles in length, and these should be deposited in spring runs at nearly equi-distant intervals, as when too many trout are deposited in any stream, the supply of fish food will soon be exhausted.

Fry should be deposited in the run when the journey's end is reached. They will not live over night without constant attention.

Trout are sent from the hatcheries of the Pennsylvania Fish Commission when over three months old, and are amply able to look out for themselves if deposited in the spring runs, where large and voracious fish cannot get at them.

#### The Castalia Club.

The annual meeting of the Castalia Trout Club was held at their club house on March 15, 1892, and the following gentlemen were elected officers and directors: J. C. Zollinger, president; John S. Sweeney, vice-president; C. T. Hasbrouck, secretary; A. L. Moss, treasurer; John A. Waite, Frank N. Beebe, Geo. J. Johnson. The season opened up just fair as to fishing, 125 being caught, weight about ninety pounds.

Mr. Fred D. Divine, the celebrated rod manufacturer, of Utica, N. Y., was there, and he has pledged himself to present the member catching the largest trout with one of his best rods, split bamboo, Bethabara or Dagama wood.

C. T. HASBROUCK, Sec'y.

Castalia, O., March 15.



### Letters from a Montana Ranch.

Our winter here has been "busted" for two weeks or more, and the buds begin to show an early spring. I was out looking around yesterday, and saw that the grasshoppers had already begun to come out to take in the looks of the land, and to get ready for use for feeding the speckled troutlets.

A boy twelve years old, living with me, went to the Yellowstone last Thursday and returned with forty-six nice fish, but the majority of them were whitefish, caught with helgramites. I have a frontage of half a mile of the river, and don't kick at any one fishing, as there is fish enough for all.

I read your March number, and was very much interested to see that my friend, Judge De Witt, is still on deck. What he writes regarding the fifteen fellows in the Missoula country makes me scratch my left ear, not in doubt, but to think I have never had the chance at that kind of whales. Mr. Fitch, in his article about fishing by moonlight, pleases me, as the experience has been here that the largest trout are caught in the night by building a fire near the shore and fishing near by. Whether the light brings the trout or not I can't tell, although I think it has something to do with it.

Then that article about Mrs. Stagg's catching the tarpon in the Florida waters; it seems almost impossible for even a man, unless he has a windlass or half hitch about a tree, to get the best of a fish weighing 150 to 200 pounds. It must be they are broken to come in, when hooked, by the angler understanding the fish lingo, or that they tire out very quick. It would seem that such monsters, if fishing from a boat, could pull the whole party out in the ocean if they wanted to. But I am green on that subject, so take it all for granted, as the evidence shows they are got away with, and in short time.

I think Mr. Fitch is one of our kind of people, and I hope he may live long to enjoy the sport. I am pretty well along in the

sixties, and don't see but what I enjoy the sport as well as ever.

In dressing a two-pound trout, a few days ago, I found it had a liver as large as a good-sized pullet; it seemed unusual, as I had never noticed they had such an article in their make-up. Is it out of the regular order of things? I did not think it possible that the maker of this trout had made a mistake, and that the liver for something else had got changed, which, if so, the devil might be to pay, and a curiosity in the bird or animal line be prowling around here. I am excused in this section for any mistakes I make, on account of my age, so you can do likewise. I am still in the market for learning something new.\*

I see the "Lone Fisherman" is still in the land of the living. I had an idea some large trout or other fish had got him, for, if my memory serves me right, he promised to put in his appearance in 1891 and learn me some of the new-fangled notions in the way of capturing our Yellowstone trout. I shall be pleased to see him at any time and take lessons from him. Judge De Witt thinks I am pretty good to practice on, and I am anticipating his coming to put the finishing touch on me this season.

*Fridley, Mont.*

B. P. VAN HORNE.

P. S.—Mr. Kimball's story of Ed. Grant, telling about the tame trout that fell off the bridge and got drowned, reminds me of a friend of mine in Delaware County, N. Y., telling of a monster trout that lived in a deep place in the stream running through his father's farm. The old fellow ate up all the small trout and other fish in the hole, and then ate off the ends of the willows that hung over the water, and then wobbled out, and in the fall went up to the barnyard and ate hay all winter, along with the cows and other cattle, and in April had a fine calf. Won't do to let that Michigander see this—he may think it ain't so.

VAN.

\* All fish have livers, and usually of a larger size, relatively, than those of land animals.—EDITH.

### Charles Crossmon.

Since 1848 visitors to Alexandria Bay have known of the Crossmon House, and it has sheltered thousands of anglers and tourists. The news of the death of the well-known founder, Charles Crossmon, will cause sincere regret to many who have known him as a genial host, always ready to welcome the sportsman. Mr. Crossmon died on Sunday at his cottage at Alexandria Bay. He was seventy five years old.

He was born near Watertown, and went to Alexandria Bay in 1848. He had learned the trade of a builder. Immediately he opened the hotel that for so long has borne his name. The first hotel, perched up on the rocks on the edge of the bay, contained only ten rooms, and twenty guests were all that could be possibly accommodated in it. In those days it was not a handy place to get at, as there was no railroad. The fishermen had to go up the canal to Oswego, and down the lake by packet. Among early visitors were Martin Van Buren and Silas Wright, who went for rest in the delightful Thousand Islands region.

Mr. Crossmon, however, believed that the little hamlet was destined to become a great resort, and soon after the building of the Utica and Black River Railroad his prophecies and hopes began to be fulfilled. Little by little the hotel was enlarged as more visitors came. Friends, however, had predicted ruin for him, and in war times it was a pretty black prospect that was faced. Mr. Crossmon did not lose heart. He bought land at low prices, and by so doing laid the foundation of a comfortable fortune. About 1870 there came a renewed rush to the section. The hotel grew in size rapidly. Now it accommodates three hundred persons.

Mr. Crossmon was fond of recalling the early days when no fish were kept on hand. If guests came, a boy was sent out to catch the dinner, and the fish were almost tossed from the water into the frying pan. Farmers who came down with loads of grain could get an oarsman to take them out all day for a bag of wheat. For years parties were taken out for a dollar a day.

A son, Charles W. Crossmon, grew up in the hotel, and has been connected with his father in its management for several years. He will continue the business probably.

To the above obituary notice let me add a few words of vivid remembrance of my first visit to Alexandria Bay in the first year of the Crossmon House, and of my first experience at trolling in the St. Lawrence River. I shall not divulge in what year it was, as I am past twenty-one and unmarried, and tell my age only upon compulsion. But it is a fact that the boy who now becomes proprietor was dandled upon my knee on that occasion. Charley is a particular friend and will keep my secret, knowing that no ill-will is harbored against him for sending me once a large mascalonge weighted with a three-pound pickerel in its maw. Later angling fortunes bred a

distaste for spoon trolling, but the zest enlivening my boating of the first dozen of pickerel (*Esox lucius*) that partook of the spoon victuals offered abides in my memory. Bro. Skinner, of Clayton, would laugh at the spoons then in use—a stout hook soldered into the point of a spoon form swedged out of brass, the centre of the upper end turned up and perforated for a strong wire, the spoon end of which was battered down and the upper end looped for the line. Of all the modern fanciful constructions none seem more taking than were those same rude implements of our own make. This fish is very generally decried as a food fish, but, as prepared and served by Mrs. Crossmon, I thought it excellent. The secret of its preparation was an immersion over night in a weak brine. The yellow pickerel (*Esox reticulatus*), as found in Cazenovia and other lakes of New York, is by many preferred to the black bass of the same waters. The mascalonge is of the same genus, and no fresh water fish has superior edible qualities, the salmonidæ excepted. The peculiar fitness of Mr. and Mrs. Crossmon for the business they had first adopted was noticeable, and presaged the success that crowned their attentions to the wants and comforts of their angling guests. Dr. Bethune, of blessed memory among anglers, especially those familiar with his fine edition of Walton, spent his annual vacations there, one of the results being the organization of a church of his faith and the erection of a stone edifice for their accommodation. In those days one was pretty sure of a good catch of pickerel. The boats were admirable, and the oarsmen expert in their management. Ward, Comstock, Duclin, Griffin and Porter headed the list, and will be kindly remembered by the fishermen who frequented Alexandria Bay in those days. Mr. Crossmon's intelligent, unobtrusive and prompt attention to his guests made him a great favorite among anglers, and the scrupulous neatness maintained by Mrs. Crossmon in every department of the hotel under her charge added yearly to the host of their obliged friends.

H. H. T.

## April.

April, with thy hopes and fears,  
 April, with thy smiles and tears;  
 April, April, showery day,  
 Making sweet the paths of May.

Like a herald sent before,  
 Like an usher at the door;  
 Like a sentinel on wall,  
 Giving merry May a call.

Tempting all the children out,  
 In thy sunshine glad to shout;  
 From thy rain and snow to run,  
 Ending all their gleesome fun.

D. H. KENT.

## PUBLISHERS' DEPARTMENT.

Our readers will notice in another column an advertisement of the Follet Patent Combination Automatic Reel, Rod and Butt. We have never used this combination when fishing, but have examined it carefully, and feel disposed to back up the claims of practical superiority over all similar devices which is made by the makers, the White-Ross Manufacturing Company, of Carlisle, Pa. It is light, strong, durable, neatly designed and handsomely finished; the entire weight of spring and gearing is in the centre of the handle, which gives a perfect balance to the rod, and also protects the spring and gearing from water and grit, which is a great point in durability. This reel is meeting with much larger sales than was anticipated by the manufacturers, and bids fair to be an essential in the outfit of all "well-regulated" anglers.

Now is the month for the use of rubber outfits by anglers, and a glance at the tabulated list of articles sent by mail by Camp & Crane, Maiden Lane and Nassau Street, New York, will surprise the uninitiated. *They pay the postage.*

The T. H. Chubb Rod Company, of Post Mills, Vt., are doing an unusually heavy business this season, and we do not wonder at it when we glance over their beautiful catalogue of colored fly plates and complete lists of every article that forms the *impedimenta* of an angler. Send and get a catalogue.

There has been left at THE AMERICAN ANGLER office two rods which the owners desire to sell. One of them is a seven-foot, two and three-quarter ounce, split bamboo fly rod, adapted for alternate brush and open fishing. It has fair action and plenty of backbone. The other is a split bamboo, black bass bait rod, weight about eight ounces, made by Divine. It is a good, serviceable rod. Both are new, never having been used in fishing. Price, \$10 each. Can be seen at this office.

## "The Practical Angler."

"Kit Clarke's" new book, bearing the above title and the imprint of the American News Company, has just been published. It is a comprehensive work, although only fifty cents per copy, and no doubt will sell well, as it covers the entire field of angling, and treats of all fishes that take baits in American waters. We cannot do better service in the way of recommending this book than by quoting the terse words of the author, who, in the preface, writes: "This book means business—that's all." We have not, as yet, seen a copy of the book, but there can scarcely be a question as to its practical value, because of the vast stores of information contained in the back volumes of THE AMERICAN ANGLER, from which, the author tells us, he has drawn to supplement his own personal experiences in, and knowledge of, "all-round" fishing.

## The Effect of Planting and Protection.

The Anglers' Association of Onondaga County, N. Y., recently met in Syracuse, and, after the election of officers, the meeting was addressed by the secretary, Mr. John M. Babcock, and we desire to draw special attention to the brief extracts from his speech quoted below. No individual or fish association can plant and protect in fluvial or lacustrine waters without the public reaping advantage from the act. The great outcry raised against club organization falls to the ground, when the domain of the club covers only a portion of a stream or the riparian rights to certain parts of a lake. A notable instance of this occurs with the Quaspeake Club, of Rockland County, N. Y., which controls a section of the head waters of the Hackensack River, leaving free to all at least fifteen miles of water. The club has within the last three years put 250,000 trout fry, and 2,000 yearlings of the same species, in the spring ponds and streams flowing into the Hackensack. *Pro bono publico* is the result in the lower waters, and among the sensible members of

the local community, opposition to the club, which, at one time, was of a fiery nature, is now dying out, albeit a few of the Hotspurs among the unfledged fishers of that section are still blatant on the "rights of man." We quote from Mr. Babcock:

If the public fully understood the objects of the association, the membership would soon be doubled. Theirs is not a selfish interest, but the whole object of the association is to secure good fishing to the hundreds of people who cannot afford to make long excursions in search of a day's fishing, whether for food or for sport. More fish, perch, pickerel, pike and bass, have been taken from Onondaga Lake and its tributary streams, by hook and line during the past year, than ever before, and it is because nets have been to a great degree excluded and the spawning fish protected. The association has been untiring in its efforts to give the workingman who now and then tries his luck a chance to get a good mess of fish. Most of the members of the association are fishermen who fish in many different waters, and would care nothing about our lake here were it not for the fact that they wish to see everybody have a chance to get a mess of fish in a sportsmanlike way, and not allow a few unprincipled people to take out all the best fish in nets. The association doesn't confine its work to Onondaga Lake alone, but all the near-by waters are protected, and many people from the surrounding towns and villages, who make no effort to help on the good work, reap the same benefits as the members of the association.

The election for officers of the above-named club resulted as follows:

President, Richard W. Jones; vice-president, John N. Babcock; secretary, Walter S. McGregor; treasurer, Charles Morey; executive committee, George B. Wood, William Everson, H. Edward Robbins, Amos Padgham and M. J. French. The association has on its rolls 260 names, and these were added last evening: Dr. Charles Barnes, Leonard Baldwin, J. D. Minturn, L. E. Ford, W. S. Morey, Frank B. Macumber, Myer Liberman, Charles Laberdie, George H. Adams, C. S. Fowler, Charles H. Miller, D. M. Lefever and J. B. Harlow.

Mr. Wm. Read, of Columbia Falls, Mont., writes us:

"A nineteen-pound trout, of the salmon species, was brought in from the river Saturday afternoon by Charley Christiansen. It was sent to A. J. Davis, cashier of the First National Bank of Butte, and will be shown to the anglers of that city as a sample of what may be done by a man who studiously pursues the trout in his native lair. Truly the Flathead country is the fisherman's paradise."

The office and publication rooms of THE AMERICAN ANGLER have been removed from 10 Warren Street to the commodious buildings, 108 and 110 Duane Street, between Broadway and Church Street.

#### A Trout Property for Sale.

An excellent farm of about 125 acres, through which runs a well-stocked and natural trout stream nearly a mile in length. This property will be sold on reasonable terms, and to an accredited purchaser a membership in a shooting and fishing club will be given with the deed. The club is composed of prominent gentlemen of New York City, who own 1,500 acres of shooting ground, seven miles of natural trout waters and about twelve acres of spring ponds, all of which have been thoroughly stocked annually for three years. The property is within thirty miles of New York and has excellent railroad facilities. Address "Farmer," care of THE AMERICAN ANGLER, 108-110 Duane Street, New York.



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My celebrated Trade Mark Goods, "MONARCH," HEXAGONAL SPLIT BAMBOO FLY and BAIT RODS, and "SILVER KING" MULTIPLYING REELS excel all others.

New Illustrated Retail Price List and Handbook for Sportsmen, containing Hints and Directions for Fishing and Camping, sent on receipt of 25 cents. A coupon good for this amount on first purchase amounting to \$1.00 or more will be sent with cat logue.

**FIRST QUALITY**  
**FISHING TACKLE**  
**AT MODERATE PRICES.**

Why should you buy the ordinary single gut-hooks, when you can get the "C. & S." best quality for 30 cents per doz. Why purchase the cheap English tied Trout Flies, when you can get the "C. & S." Best at 50 cents per doz.; ours are tied here by skilled fly dressers and best materials used.

Selected Gut Leaders, single and double, plain and looped.

Lancewood Fly Rods in wood forms, No. 1403 at \$3.00, No. 47 F at \$3.75.

Lancewood Bait Rods in wood forms, No. X46 at \$3.00, No. 47 F at \$3.75.

Lancewood Combination Rods (fine styles of Rods in one), No. 410 O at \$3.50.

Split Bamboo Rods at all Prices.

We have 20 extra fine Split Bamboo Fly Rods, 5½ oz. German silver trimmed, cork hand-grasp, extra well made, that we offer for \$12.00 each, worth \$15.00.

We call attention to our "C. & S." Special Split Bamboo Fly Rods, 3½ x 4 and 4½ oz.; they are guaranteed by us for one year. Price, \$24.00.

For full information call on us or send for our Illustrated Catalogue. Enclose 6 cents and we will include one of our fancy Tackle or Pocket Books.

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## Rubber Goods for Sportsmen.

**CAMP & CRANE,**  
27 Maiden Lane, - NEW YORK.

We guarantee the quality, and will send by mail, postage paid, any of the following goods:

Rubber Leggings.....	\$1.00
Rubber Wading Leggings, stocking feet.....	4.50
Pants.....	6.00
Double Texture Tan Silesia Wading Leggings, stocking feet.....	7.50
Double Texture Tan Silesia Wading Pants, stocking feet.....	10.00
Double Texture Tan Silesia Wading Leggings, boot feet.....	12.00
Pants.....	14.00
Light Weight Rubber Boots, long legs.....	4.50
regular size.....	3.50
Rubber Camp Blankets, 45 in. x 72 in.....	1.50
Ponchos, on sheeting.....	3.50, 4.00, 4.50 each.
on check cloth.....	4.00, 4.50, 5.00
according to size.....	
Canoe Air Beds, 20 in. x 50 in.....	12.00
Rubber Bags for Camping Outfits, 2.50, 3.00, 3.50	
Silesia.....	4.00, 4.50, 5.00
according to size.....	
Soft Rubber Tumblers, round and canoe shape.....	.25
Hard " Telescopic Tumblers.....	.50
Plain Hard Rubber Tumblers.....	.40
Pocket Corkcraw, rubber handle, No. 1.....	.40
No. 2.....	.50
Rubber Pistol Pockets.....	.50, .60, .75 each.
Circular Cushions, 12 in. diam.....	1.65
" 14 ".....	1.90
" 15 ".....	2.00
" 16 ".....	2.20
Rubber Caps with Capes.....	.75
Hats.....	1.00
Tan Silesia Shooting Caps.....	2.00
Mackintosh Yachting Caps.....	1.50
Tan Silesia Shooting or Fishing Jackets.....	8.00
Cartridge Bags.....	2.00
Rubber Gun Covers.....	1.50
Tan Silesia ".....	2.00
Tobacco Pouches, double, small size.....	.25
" medium ".....	.35
" large ".....	.50
self closing, small size.....	.25
" large ".....	.35
Folding Bath Tub, 16 in.....	5.00
" 25 ".....	8.00
Boat Seats, inflated.....	3.00
Air Pillows, 9 x 13.....	1.75
" 10 x 16.....	2.00
" 12 x 18.....	2.50
" 14 x 23.....	3.00
Life Preservers, No. 1—29 in. long.....	2.50
" 2—33 ".....	3.00
" 3—37 ".....	3.25
" 4—41 ".....	3.50

These being made with shoulder and body straps, when attached cannot move down or off the body.

The above list comprises but a small portion of our stock of rubber goods for sportsmen, of which we make a specialty. We carry everything in that line, and will forward catalogues and prices free on application.

**REMEMBER WE PAY THE POSTAGE.**

**CAMP & CRANE,**  
RUBBER GOODS OF EVERY DESCRIPTION,  
27 Maiden Lane, - New York.

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The many lakes and streams afford the finest of fishing. The brook trout, the celebrated grayling, black bass and other varieties of game fish.

The train service of the Grand Rapids & Indiana Railroad for the season of 1892 will be complete in every particular.

Through sleeping cars between CINCINNATI, PETOSKEY and MACKINAW; between CHICAGO, PETOSKEY, and MACKINAW, via the Michigan Central Railroad and Kalamazoo; between DETROIT, PETOSKEY and MACKINAW, via the Michigan Central Railroad and Grand Rapids.

Tourist tickets can be purchased to any of the above points at reduced rates during the season.

For descriptive matter, time cards and full information, address

**C. L. LOCKWOOD,**  
General Passenger and Ticket Agent,  
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AND

### NEW YORK R. R.

Offers unusual fishing facilities to the

### ANGLERS OF NEW YORK CITY.

Within thirty miles a number of trout streams exist which, early in the spring, are fruitful, and at all times of the open season yield a few trout on a day's outing.

The Hackensack River, along the south shore of which the road runs for many miles, is celebrated for its white perch fishing in tideway, and black bass and pickerel are at times taken freely. Some trout are to be had in the "free to all" upper portions of this river. The following stations are visited by many anglers:

**HACKENSACK.**—For white perch and striped bass; boats and bait can be had.

**HAVERSTRAW.**—The Hudson River at this point is fished for perch and bass, and a few miles distant is a trout stream, portions of which are still open to the public.

**HILLSDALE.**—A trout stream is near by, and some good fish are taken out of it early in the season.

In the Hackensack above River Edge there is at times excellent fishing for pike.

Trains leave foot of Chambers Street as follows: 7.52, 8.45 and 9.52 A. M. Returning, arrive in New York at 12.50, 3.55, 5.55, 7.55, 9.10 and 11.10 P. M.

J. D. HASBROUCK,

General Manager.

THE FINEST

## Black Bass and Brook Trout

waters within easy reach of sportsmen are the streams along the line of the

## Baltimore and Ohio Railroad.

On the eastern slope of the Alleghany Mountains are the Potomac, the Shenandoah and their tributaries all famous for Bass, while across the divide are the Cheat, the Youghiogheny and the Monongahela. The Cheat and the headwaters of the last two named are celebrated for Brook Trout. The fishing grounds are in most cases within gunshot of the railroad stations and sportsmen are saved the expense and trouble of carrying their outfits long distances.

For rates of fare, time of trains and further information address

**CHAS. O. SCULL.**

General Passenger Agent B. & O. Railroad

BALTIMORE, MD.

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Along the line of the "Erie" from 20 to 200 miles from New York City may be found some GRAND FISHING WATERS, among which may be named:

Basket, N. Y., for black bass and trout early in the season.  
Callicoon, N. Y., for black bass, trout and pickerel.  
Canisteo, N. Y., for black bass and pickerel.  
Castile, N. Y., for trout and pickerel.  
Chemung, N. Y., for black bass.  
Deposit, N. Y., for black bass and trout early in the season.  
Greenwood Lake, N. Y., for black bass and pickerel.  
Hawley, N. Y., for black bass, trout, perch and pickerel.  
Highland Mills, N. Y., for black bass, trout, perch and pickerel.

Jamestown, N. Y., for muscalonge, black bass, pickerel, etc.  
Lordville, N. Y., for trout and black bass.

Olean, N. Y., for black bass and perch.

Otisville, N. Y., for black bass, pickerel and trout.

Port Jervis, N. Y., for black bass and trout.

Spring Water, N. Y., for black bass and trout.

Woodbury, N. Y., for pickerel and perch.

Besides the above there are several hundred other points in New York and Pennsylvania reached by the Erie where excellent fishing and shooting may be had.

Express trains leave Chambers St. daily at 9 A. M., 3 P. M., 6 P. M. and 8.30 P. M. Send for time tables and all other desired information to

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General Passenger Agent, 21 Cortlandt St., N. Y.



SPORTSMEN WILL consult their own interests if when buying Fish Hooks they insist upon having those only made by **THE AMERICAN NEEDLE AND FISH HOOK CO.**, New Haven, Conn., who have the largest facilities, and make Best goods in the world. FOR SALE BY THE TRADE EVERYWHERE. ASK FOR ILLUSTRATED CATALOGUE.

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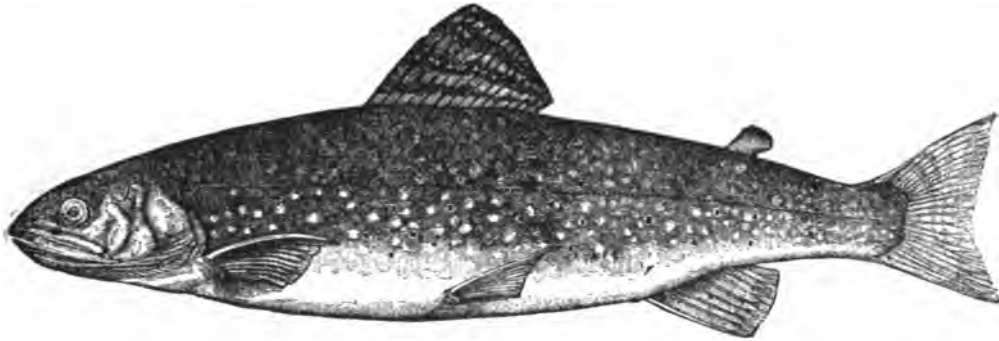
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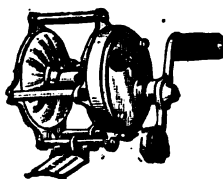
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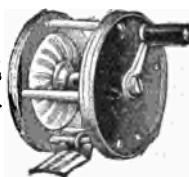
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**FOURTH.**—The Ferrules (as all important feature of a Rod) are absolutely water-proof. This is secured by a new, ingenious device never before introduced in the construction of a Rod.

**FIFTH.**—The ferrules also are practically double, as fitted over the bamboo is a waterproof Ferrule. Xylonite, while over that is set the Ferrule, thus reinforcing the Ferrule proper and preventing the sharp edge of the German Silver Ferrule.

**FIGURE 1.**—Shows Celluloid reinforcement for both male and female Ferrule.

**FIGURE 2.**—Shows male Ferrule, with reinforcement of Celluloid underneath German Silver Ferrule.

**FIGURE 3.**—Shows sectional view of the waterproof joint from shoulder up.



role from cutting into the channel of the Bamboo at point of contact, at both male and female joints. The German Silver Ferrule also being made on a true taper (see cut) enables the reinforcement of Xylonite Ferrule to be stretched over the Bamboo without cutting away any of the channel, which has to be done in the case of any Ferrule, except where it is reinforced as in the Kosmic.

### WHAT THE ANGLERS SAY

**THE PARADISE PEN AND FEATHER SHOP, LAC DEL GRANDE LAKES, CANADA, July 14, 1906.**

**Messrs. A. G. Spalding & Bros.—(ONTARIO.)**—I have handled some pretty good rods, but none has pleased me better than the five-ounce "Kosmic" which you built for me last May. I fished with it daily during the month of June, and lifted many heavy trout up to four pounds each, and then, in order to test its murderous qualities, tried bottom fishing with a four-ounce live perch for bait. The little perch went into the jaws of a four-pound trout, and in due time the trout went into my boat. This, you will concede, was a hard test for so light a rod, but it stood it like an old timer, and is worth all the praise I can give it. I like a rod with backbone—one that is tough and stiff in the middle joint; for after all a rod's work is done between the two ferrules, and in this most valuable essential my "Kosmic" is perfection. Besides, the artistic moulding and beauty of finish displayed in the rod won admiration from many accomplished anglers. The man who tries to make a better rod will have to hustle.

Yours respectfully

RIT CLAIKE.

CLEVELAND, OHIO, May 18, 1901.

**A. G. Spalding & Bros., Chicago, Ill.**—My Dear Sirs:—I know it will please you to hear a report on the action of the five-ounce "Kosmic" trout fly rod you sent me—because it is emphatically a good report. With a half dozen rods of my own, it is the best one I ever had in my hand, and during a visit to Castalia this week, all the club members who saw it spoke highly of its admirable qualities. The keeper, also, who is a beautiful fly caster, said it was "the best nine rod, and the biggest little rod," he ever saw. They know a good one when they see it at Castalia, too.

Yours sincerely,

CHAR. W. BROWN,

President the Bannockburn Club and Company.

CLAYTON, N. Y., August 16, 1891.

**MY DEAR SIR:**—I never had a rod that hooked a fish so easily, and held it as well as my first "Kosmic." And in this respect the new rod works as well as the old, and I have already done with it some very good fishing.

Sincerely yours,

L. LIVINGSTON REEL.

OSCA, CALIFORNIA, March 15, 1891.

**Messrs. A. G. Spalding & Bros.—(ONTARIO.)**—I take pleasure in acknowledging the receipt of the little five-ounce "Kosmic" flyrod which you have built for me. It is a "dandy," the best I have ever possessed. Its excellence, casting qualities, artistic moulding and beauty of finish displayed in the rod, commend it to all anglers. It is the most perfect rod I ever used, but I need not go into particulars, for, as a whole, it fills all my desires for a rod, and seems as near perfect as man can make it. It is a beauty as well as a perfect piece of workmanship. I shall now feel much all over when I go to rig my want of flies. I congratulate you on your success in getting the so handsome and an excellent rod.

Yours very truly,

GEORGE L. BRADFORD.

NEW YORK, November 15, 1890.

**Messrs. A. G. Spalding & Bros.—(ONTARIO.)**—The working of the six-ounce "Kosmic" rod, which I obtained from you, exceeded my most sanguine expectations. I took with it three black bass in succession, weighing respectively two and a half, two and three pounds. I was fly casting from shore, and, not having landing net with me, I had to drag the fish up a sliding rock, but the little rod stood the strain admirably. I have caught many bass with the same rod since, but none as heavy as those three. Notwithstanding the hard usage to which I have subjected it, its "line" is perfect and its "backbone" unimpaired. I can, and shall, cheerfully recommend the "Kosmic" rod.

Yours very truly,

EAN HUM.

39 BROADWAY, NEW YORK, September 14, 1891.

**Messrs. A. G. Spalding & Bros.**—My Dear Sirs:—Referring to your inquiry about the Kosmic rod I purchased from you, I beg to say that I have found it absolutely perfect. I never could believe that so light a rod could be built so stiff and strong. I hooked six muskellunge on it and landed five out of the six; the other one was lost in gaffing alongside the boat. The heaviest fish I had on was about forty-two pounds, and the one I lost was about the same size, probably the mate of the first one, as it was struck only a few yards away. I can conscientiously say that the Kosmic is the most satisfactory rod I ever fished with.

Yours very truly,

J. HUBBARD.

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AN ILLUSTRATED  
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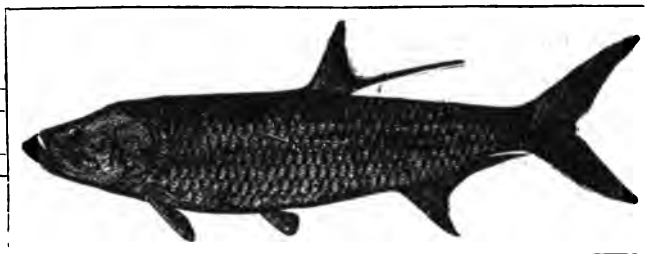
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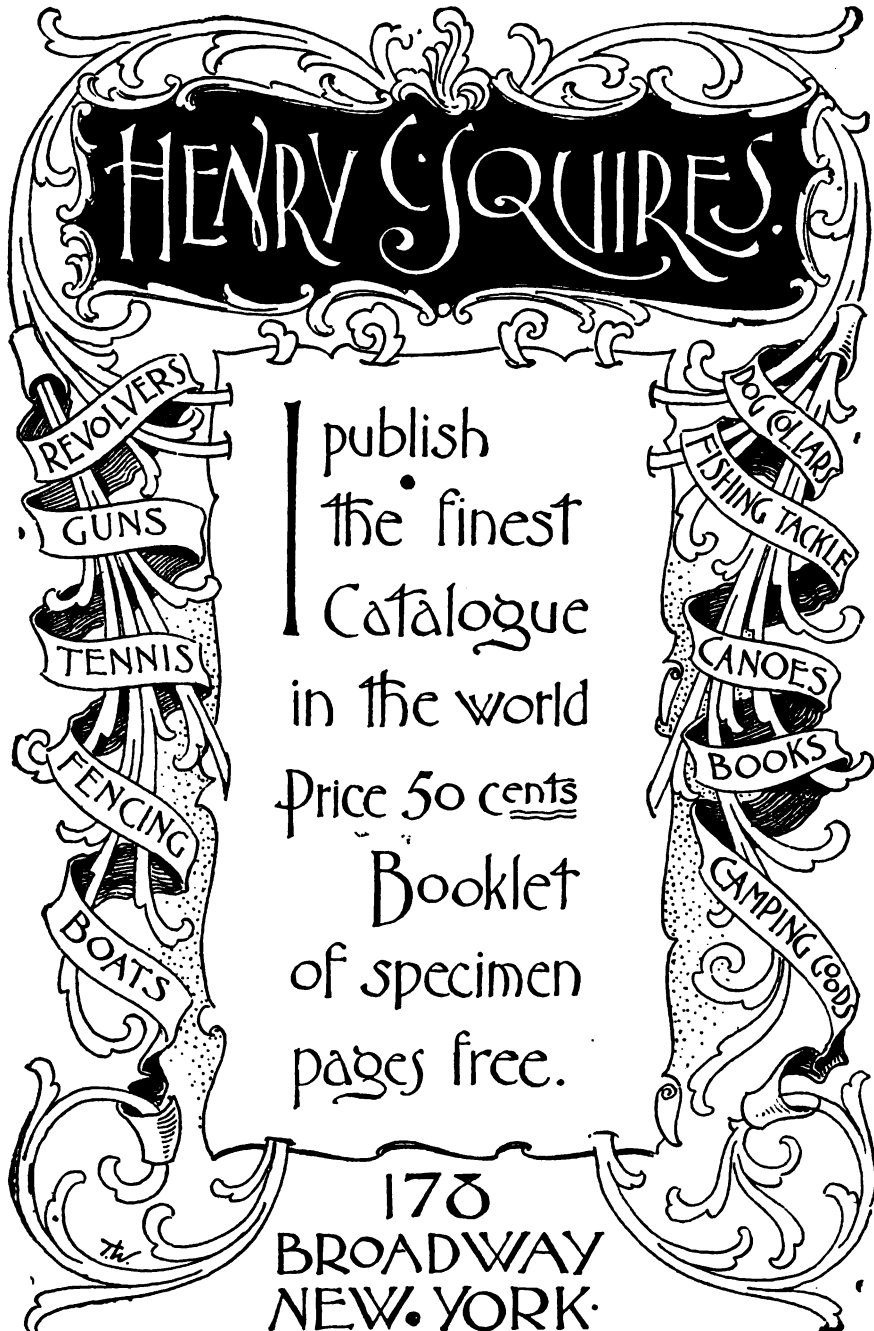
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# THE AMERICAN ANGLER.

VOL. 21.

MAY, 1892.

NO. 8

## THE MIRAMICHI FISHING WATERS.

By D. G. SMITH.

If one would realize the wealth of salmon angling waters of the north shore of New Brunswick, he must pass through such experiences as I enjoyed for a week in July on the Northwest Miramichi River. Before I started on the trip I had a fair idea of the waters I was to visit, of the country traversed by them, and their attractions from the angler's point of view, but, as I had never "been there," I had failed to form an adequate conception of just how near it all approached my ideal of a perfect fisherman's retreat.

My trip occupied six days, and extended as far up the Northwest River as men or fish generally go—further than the lumbermen or cruisers think it necessary to push their investigations. It gave me time to do some good fishing, see some of the grandest scenery of the country, enjoy the comforts and pleasant hospitalities of Camp Adams, to spend two nights under canvas beside the river, get soaking wet with rain, hail and spray as we ran the rapids—and, as I took some notes by the way, it may not be uninteresting to the many who are anxious to gain accurate information of this class, for me to relate my experiences just as they were noted at the time, although they were jotted down for private use only, in the first place, but were, subsequently, the subject of a series of articles in a local paper, and are now revised for THE ANGLER.

The Miramichi is the second largest river in the Maritime provinces of Canada. A very

large area is drained by the feeders which supply its two main branches, the Southwest and Northwest, the former being navigable for steamers sixty miles above Chatham, and the latter about twenty. The Southwest rises in Victoria County, adjoining the State of Maine, and the Northwest has its source in the foothills of Bald Mountain, which is the Pisgah of Northwest New Brunswick. The waters of the two rivers unite at a point about a mile below the well-known Intercolonial steel railway bridges which span them, flowing past Newcastle and Chatham and into Northumberland Strait, which latter separates Prince Edward Island from the mainland.

The salmon angling waters of the Southwest begin about eighty-five miles above Chatham. Salmon are caught with the fly, however, from the head of tide at Indiantown—twenty-three miles above Chatham—all the way up, but it is uncertain fishing until the Burnt Hill district is reached, at and above which it is a great salmon stream.

Cain's River, a big branch of the Southwest, is second to no water in North America for sea trout from the first of July to the end of the season. It is reached by wagon over an eight-mile portage road from Doaktown, a station on the Canada Eastern Railway—and, by the way, this is one of the many New Brunswick Government streams, the leases of which expired in March, '92, and were re-leased at Fredericton on the 23d of that month.

The Renous, which branches from the Southwest a mile above Indiantown, and the Dungarvon, a branch of the Renous, are excellent salmon rivers, but, like the Southwest, their fishing waters are far up stream, and extend a distance of about fifty miles on each. Both of these rivers are best reached by portage road from one of the Canada Eastern stations between Bristown and Doaktown.

The salmon waters of the Northwest include that river from Big Hole, which is about twenty miles above Newcastle, up to its north and south branches, a stretch of about sixty miles; the Little Southwest, say fifty miles of fishing water, and the Little and Big Savogle, with the two branches of the latter, which give sixty miles more.

These rivers are, of course, very much longer than the mileage stated, for I am confining myself to their salmon fly fishing stretches exclusively. There are, therefore, about four hundred miles of salmon water on the two great branches of the Miramichi and their tributaries. Many avenues lead to this fine fishing country. The best, from Eastern United States points, is rail via Bangor and Vanceboro to Fredericton Junction, thence via Fredericton to convenient portages on the line of the Canada Eastern, for the main Southwest, Dungarvon, Renous or Cain's rivers; and, if for Indiantown or the Northwest waters, by Canada Eastern direct to Chatham or Newcastle. Those to whom time is not a great object may take steamer from New York or Boston to St. John, and thence by Canadian Pacific and Canada Eastern; or by Intercolonial from St. John to Chatham or Newcastle, are optional routes. From the Western States and upper provinces the favorite route is Canadian Pacific to Fredericton, and thence by Canada Eastern as already described, although some prefer the Intercolonial route along the St. Lawrence and Bay Chaleur to Miramichi.

As I have already intimated, my July trip was up the Northwest Miramichi. I started from Chatham on the first day of the week, at 9.30 A. M., with Col. ——— as *compagnon de voyage*, drove five miles up river to the steam ferry, crossed the river—which is here a half

mile wide—to Newcastle, and at 10.30 A. M. was fairly on the road. My vehicle was a buckboard, and on it were our rods, sleeping tents, camp kettle and a box of provisions, for, although I had been enjoined to carry nothing, as everything necessary for all purposes of the trip would be found at Camp Adams, I knew that my own mode of outfitting gave good results as to sufficiency and comfort, and thought it well, in going so far, to provide against contingencies.

The salmon pools of the Northwest Miramichi, which I was to include in this trip, extend from, say Dennis', near the end of the Chaplin Island Road, to within a mile and a half of the Forks—some six or seven miles from Bald Mountain—a distance of more than fifty miles by river. The famous Big Hole pools, which are seven miles below Dennis', and a few others, are not included in this range of water, because they may be considered along with the Sevogle waters, which are second only to those of the main Northwest as salmon resorts.

To fish the pools of this fifty-mile range a centre of operations is necessary, for after going a mile or two above Dennis' the settlement ends and the unbroken forest begins. The best pools, also, being above the roughest and unnavigable waters, they must be reached by land, for, while canoes can ascend the river by being carried around the cataracts in several places, it is only by land that necessary camp supplies and equipage can be conveyed to the vicinity of the great salmon sanctuaries of the upper waters. It was to meet this requirement that the idea of a permanent camp was carried out by the establishing of Camp Adams, which is some thirty-five miles above the north end of Chaplin Island road, by the river, or twenty miles across the country from the same point by a trail which has long existed as the great lumbermen's portage road for their operations in this famous region. The spot occupied by the camp is off the main portage, on an island a few acres in extent, formed by the main river on the northeast side, and, on the other or southwest side, by a small stream that has broken its way through what

was doubtless dry land at some time, and is now a brook.

After a drive of about sixteen miles from Newcastle, over one of the most direct roads in the country, we reached the Northwest River at a point on the main highway about six miles above the mouth of the Big Sevogle, stopping at the comfortable hostelry of Mr.

of which have been carefully bridged by stretches of corduroy, involving no little expenditure of money and labor. The whole route is well wooded, the richness of the soil being indicated in many places by the strong growth of the hardwoods, such as beech, maple and birch, the coniferous trees, however, predominating. We found that, while our



CAMP ADAMS.

John Way, from opposite which the long portage road to Camp Adams leads off into the forest. It was about half past two in the afternoon when our horse was rested and fed, at which time we set out for the twenty-mile portage journey to camp Adams. We found the road a very good one, considering the roughness of the country traversed, which, especially for the first few miles, is very stony, the well-bouldered surface, however, being relieved here and there by black mud bogs, all

buckboard made an admirable portage vehicle, its five-feet gauge was rather wide to follow easily in the track of the wagons used between Way's and Camp Adams. This is a point to be noted, as the narrower the wagon the easier will be its traction on such a road as this. There were many noticeable spots along our route, but it is not my purpose to describe them. I must, however, note that known as Stony Brook Hill, the approach to which is about ten miles from Way's and from high

land. The traveler comes suddenly upon the declivity and the road trends to the right, getting on which one realizes that only a good horse, good harness and cool nerves in driving are equal to the work of a safe descent. Not only is the road on a grade so sharp as to suggest perpendicularity occasionally, but, being made on a side hill, it slopes outward, as if to throw descending teams into the chasm below; and, to make the situation the more interesting, the tracks formed by passing wheels on the outer edge of the road is appropriated every spring and during summer rains by the young torrents which pour downward to the valley beneath, obliging the driver, as he warily guides his horse, to also add his weight to his wagon on the up-hill side, lest the whole outfit go tumbling down into the bed of noisy Stony Brook. I am told that men engaged in making winter portages at this place are obliged, at times, to "bridle" their sleds to trees on the upper side, and ease them down with lines in order to save their bacon, as well as their beef, beans and camp *et ceteras*. A gang of men worked on this hill for several weeks later in the season, and I learn that it is now quite passable, and can be driven safely.

A twenty-mile portage—most of which the Colonel walked, in this case, for exercise—over which one has never before travelled is very interesting at first, but one gets enough of it after a time, and although that leading to Camp Adams presents as much variety of natural attractions as any to be found in New Brunswick, the attentions we were receiving from flies of varied species, and the fact that the sun was touching the western forest fringe, to say nothing of hunger induced by the journey over a rough country, caused us to welcome a sight of the camp, at about 8 P. M., with a feeling of satisfaction. We had expected to find comfortable quarters, but were not prepared to see, standing on one side of a clearing near the river's bank, and some ten feet above a fine salmon pool, a picturesque cottage, its board and batted walls tastefully embellished in white and colors, a broad veranda, with roof supported on substantial columns, running around three sides, and an ample platform on

the fourth, chimney of real bricks, windows and doors equal to any in the settlements, and its surroundings indicative of a taste and perfection of arrangement calculated to make "the wilderness blossom as the rose," and salmon fishing a luxury. Two or three boys, of from eight to twelve years, greeted our arrival, and they were reinforced by Hon. M. Adams, M. P., who, with Mrs. Adams and their two sons, and two sons of a friend, were enjoying a holiday time at the camp. Edward Way, one of the best canoe men and guides on the river, was in camp, and his brothers, William and Robert, two others of the camp force, who had gone to the settlement, were expected back next day. Archy Stewart, who proved to be the best of cooks, had charge of a commodious log kitchen about fifteen feet square, and built apart from the cottage, which, however, was reached from it by a nicely laid platform of boards. While he was preparing tea for us we saw our horse fed and made comfortable for the night, and had a look about the premises. The horse hovel is about a hundred yards from the cottage, across a temporary bridge, and is an excellent shelter from bad weather and flies. On our return from this we visited the smoke-house, which is built on the bank of the small stream on the opposite side of the cottage from the main river. It is about the best conceivable contrivance of the kind. A giant pine stump in the side hill sends its great roots down on either hand, and between these a cavity has been excavated, which is perhaps thirty inches high and forty wide. This is the place where smouldering white birch burns during the fishing season. Leading up-hill from it at the rear is a stoned-up, earth-covered passage about ten or twelve feet long, through which the smoke passes, entering the smoke-house, which is about eight feet square, and, when we examined it, contained an array of salmon and grilse that indicated the wealth of sport of which Camp Adams is the centre.

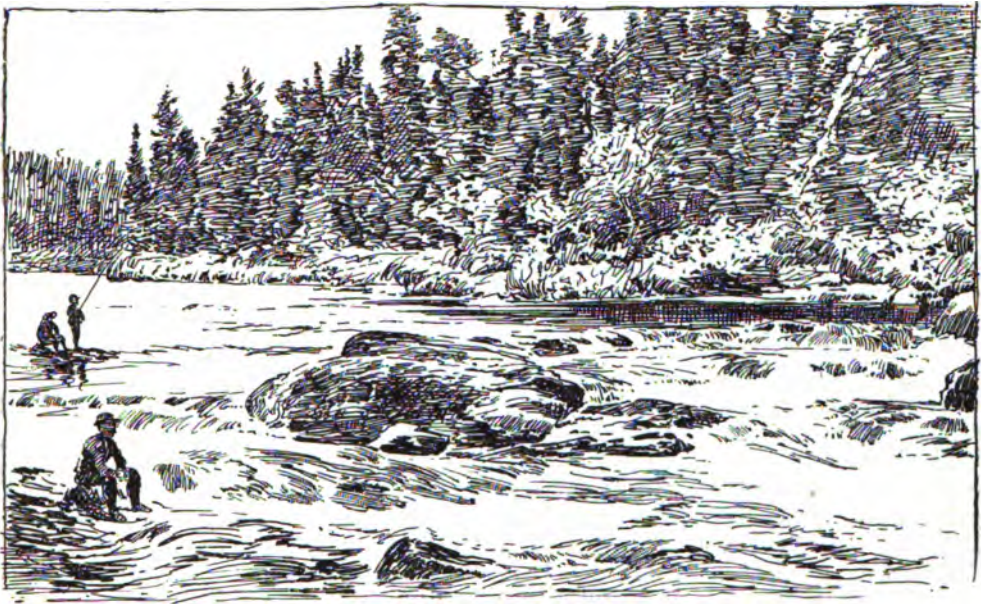
If the exterior and general surroundings of the camp told of comfort and excellent arrangement, the interior of the cottage was no less agreeable in these respects. The plastered walls were white and clean, the trimmings of



the doors and windows tastefully painted; a stairway led to the attic rooms, where hammocks and camp beds—half a dozen of them and all single—were suitably placed; the windows, large and hinged so as to open full size, were protected by fine wire netting, also in hinged frames; the two double beds in the large first floor bedroom were protected with mosquito bars, and the furniture was more of the city than even country pattern. In the large general, or dining room, was a side-board,

them outside, where, anticipating the morrow's sport and further investigation of the Northwest region, we were soon sleeping the sleep of tired, but very comfortable travellers.

I cannot imagine conditions more inducive to vigor-imparting rest than the thorough satisfaction of a good appetite, the enjoyment of good health, a pure atmosphere, and the sense of immunity from worldly cares which come to one leagues away from human habitations, with the music of running waters blended with



SALMON POOL AT TOP OF FALLS.

and also a cabinet large enough to store provisions for many days. In short, the place impressed us with the fact that nothing that experience and ample expenditure could devise and secure had been neglected in organizing the establishment, which we learned had been the resort of a number of privileged anglers for the past twelve years.

After fully testing and appreciating Archy's evening bill of fare, we resisted Mr. Adams' tempting inducements to sleep in-doors, but, accepting a camp stretcher and mattress each, pitched our little fly-proof sleeping tents upon

the souging of the forest trees as a sleeping incantation. "But what about the flies?" I hear some one say—"the mosquito, the midge, the black fly and the 'bite-em-no-see-em?'" That's just where our sense of solid comfort was intensified; for within our little four-pound, fly-proof sleeping tents, the tenor singing of their wings—itsself a source of wakefulness to the unprotected—could but add to the lullaby of the running water and sighing winds. So, 4 o'clock in the morning, which, to the city dweller, is the hour for soundest sleep, found us rested and refreshed. Emerging from our

tents, we saw Archy already astir, and, while he was preparing breakfast, we made ready to do some fishing. My purpose was mainly to see as much of the river as possible, for, having come so far, I had determined to know as much of the merits of the Northwest as the time at my disposal would admit of my finding out. The Falls and Basin, which are about a quarter of a mile above the camp, are the Mecca of all Camp Adams fishermen, and, as the Colonel's duty elsewhere obliged him to make his stay a short one, I was quite satisfied to do my fishing at other pools, awaiting the men who were to go up-river with me next day, while Mr. Adams and the Colonel—accompanied, of course, by some of the little fellows—went up to that most interesting spot.

After lashing my rod together and properly gearing it, I heard something of "The Spring," and learned that it was the place where fish were kept fresh for a good many days, when necessary, so, instead of going fishing, I visited it. In doing so I had to cross the river a few yards above the camp, the bridge being composed of single sticks, flatted on one side, and spanning the turbulent waters from the points of the ledge, which here composes the river bed and banks. There are three of these single-stick spans, which are kept rigid by braces footed in the bottom of the rapids and spiked against the sides of the poles, so that the passage over involves just enough danger of a ducking to make it interesting. The Spring is really two springs, which run out of the solid rock directly opposite to the camp, and the water seems as cold as if it ran off a glacier. One jet is conducted through a small trench of bark to a point near the bridge, and supplies the camp with drinking water, while the other runs into "The Refrigerator" and preserves fish, meat, etc., by the cold air it makes, which is ingeniously stored.

There is, just above the bridge, a fine grilse pool, in which I gave a few casts, and had a lazy rise, but no strike. He couldn't be induced to rise again, and, seeing the Colonel and party coming down to breakfast on the other side, I determined to be counted in on that, so went over to camp. The Colonel re-

ported bad luck. He had hooked a salmon on top of the Falls and lost it, and several grilse had dealt shabbily with him in the Basin. We had lamb chops and fried potatoes, hot rolls and coffee, with the *et ceteras*, for breakfast, after which the Colonel started off again for the scene of his morning's operations, whither I followed soon after. The path to the Falls and Basin was through the heavy woods, parallel with the river, and, although the water was very low, the roar of the Falls could be heard until the spot was reached. The path leads out upon the right bank of the river opposite "The Basin," which is below "The Falls." Here is vantage ground indeed for anglers, half a dozen of whom may fish from the jutting ledges at the same time. Messrs. Adams have spanned the wide fissures and chasms, which skirt the Falls and Basin at low water, with large logs and spars flatted on the uppermost side, so that the passage from point to point is easy. The spring and fall freshets swell the river so that it foams with terrific force and volume where these temporary bridges are, and it is, therefore, necessary to remove the timbers which form them to the higher ground as soon as the fishing season ends, to prevent their being carried away and lost.

Going to the upper ledge which juts out upon the brink of the Falls, a good view of them is obtained. A salmon pool, beginning in the broken water a few rods above, and whose bed ends against this ledge as it runs beneath the water, which abruptly tumbles over it, first attracts the fisherman's eye. The Colonel, who had never caught a salmon, hooked one this morning in this pool only a few feet from the brink of the Falls. The fish made a rush up the pool, ending with the customary leap, and his next dash for liberty was downward toward the brink, below which the foaming water leaps and tumbles in its might, until it reaches the Basin on a plane some twenty feet below. The Colonel thought he could stop the fish from running into this seething chasm, and he gave him the butt, while Mr. Adams vainly shouted, "Let him go!" The consequence was the loss of his first salmon, a Jock Scott and part of a casting line.

If the Colonel ever hooks another salmon at that spot he will "give him his head" when he rushes for the Falls. It takes very strong gear to restrain a salmon's movements, even in smooth water, and the salmon "rig" isn't yet made that will stop or turn him when he makes his mad runs for freedom.

Below the first pitch of the Falls there is a small basin, or rather cauldron, where the water gathers in foamy swirls for a second leap between the high ledges, after which it runs

fish here—rather hard. I left the fly with him, and, next, lost a grilse that was imperfectly hooked, after which I concluded to leave the Falls and Basin to the Colonel and seek other pools.

Camp pool is almost within a cast of the camp veranda, but as Archy had been doing camp chores beside it, and the boys playing in the canoe, "Robert Henry," in the middle of it, I waded in and made a cast, more because its waters appeared tempting than with the ex-



BASIN POOL BELOW THE FALLS.

swiftly into a long and wide basin pent up by jagged rocks on the right bank, where the depth is considerable. Looking toward the left bank, however, as one stands on these rocks, he can see the coarse gravel bottom, where the salmon and grilse lie within from fifty to a hundred feet along a bed of considerable extent, stretching up and down stream. A portion of the outlet from this Basin is composed of shoal rapids close to the left bank, while the remainder of the waters pass off between the ledges forming the lower portion of the basin on the right. Casting from one of the upper ledges, I struck a salmon—my first

expectation of a rise. A grilse showed up, however, and on his second rush I struck quickly, but with great caution, remembering my experience at the Falls. He seemed to be well hooked, and indulged in the usual gymnastic feats, while I enjoyed his flying leaps, which I humored to the full, as I was in no hurry to land him until he was exhausted. I was the more patient, too, because an old splice in my rod tip showed signs of weakness, and I feared it would snap. Ned Way now made his appearance from the high bank with a large landing net, and lifted the beauty from the water, when I handed him over to Archy to be

prepared for lunch—for, bear this in mind: the men rule the roost from the kitchen upward at Camp Adams, and dinner is always the third meal of the day. The cook has no evening callers up there, and doesn't run about the neighborhood at nights; there are no surreptitious candy frolics at the neighbors' or dances for which the assembled maid servants provide the luxuries, so there is no anxiety to have the dishes washed before sundown. I tried the camp pool again, and it yielded a couple of good-sized trout before lunch time, but I couldn't induce a salmon or another grilse to show up.

After lunch Ned piloted me down to the "Chain Rocks" Pool, about a third of a mile below the camp. We walked down the main portage to the point where it leads off to the right from the river, there wading across and going along the left bank, where the footing is fairly good, until we came to Chain of Rocks Pool—a good-sized one on the left side of the river—where the water runs strongly and almost with silence over the coarse gravel bottom. The ledges which form the bank are very advantageous for casting, and almost my first trail of the fly caused a rush from a waiting grilse, in striking which my "lame" rod tip gave way, the hook also tearing out.

My jack-knife was not as sharp as such a "splicing" emergency required, but fortunately Ned had a small bit of a whetstone in his pocket, and while he was putting the necessary edge on the blade, I looked up the other requisites for making a new splice. These were found in my dry pocket, and consisted of a fine double thread of linen, well waxed, and a small quantity of cobblers' wax enclosed in a piece of chamois skin. I am thus particular in mentioning these seemingly unimportant items because, if I had been without them, I would have had to return to the camp to make repairs, instead of effecting them on the spot. The two parts of the broken tip were soon "halved" by a long splice, the flat surfaces of which I waxed thoroughly before placing them together; the waxed thread was then wound tightly around the splice, close together, and so well was the job done that the same tip

carried me through the week's fishing, and is apparently better than ever. A grilse and two trout were the result of half an hour's stay at this pool, and, after landing them, we returned to camp to make some arrangements for the next day's expedition up the river. While these were being completed Mr. Adams mentioned Tom's Pool as being about a quarter of a mile below Chain Rocks, and although it was near sunset, I started off alone to find it, retracing the way to the latter place, and keeping the same side of the river until a fordable rapid suggested better travelling by the right bank.

I should explain here that, to fish such a river as this, or any river, in fact, without a canoe, one must not wear any "toggery" that will prevent him from taking the water at any depth up to his neck—and above it, if need be—with composure and confidence. Avoid wading pants and stick to knickerbockers. Let your clothing be woolen and as light as possible, so that it will dry quickly. Wear broad-soled laced boots of heavy leather, reaching two inches above the ankles. Soles should be thick and well-armed with hobnails. With such a rig, supplemented by a watertight, Waltham, water-proof fly case (an invention of mine), a soft rubber drinking cup and rubber satchel for "grub," a man can do a great day's work on a rough river. Add one of the little fly-proof, four-pound tents already mentioned, and a true angler can be happy in having all he needs for two or three days.

Crossing and continuing down stream, I came to the looked-for pool, which is also on the left bank, and turned out to be quite as inviting in appearance as that a quarter of a mile above. After a few casts, during which a smart shower came on, I hooked and landed a grilse and had a rise from a second, but darkness, which was hastened by the rain, was closing down, and having to ford the river three times before reaching camp, I made my way up stream, and arrived at headquarters to find that the Colonel and Mr. Adams had landed two grilse for the day, and lost several others, in their fishing at the Falls. Dinner was soon served, and consisted of soup, a splendid hind quarter of lamb, roasted to a



turn, green peas and potatoes, a pudding and coffee, nuts and raisins. In fact, the Camp Adams commissariat and *cuisine* were on a scale of variety, plentitude and perfection such as I had never before known in many years' fishing experiences, and the general comfort and luxuriousness of the establishment, with its wealth of fishing pools and attractive natural surroundings, fully justified all that I had before heard of it.

After dinner of this, our second evening at the camp, Mr. Adams produced a good-sized record book, the contents of which were most interesting. Many of its pages were filled with the handwriting of different visitors and guests of the club, who had set down the incidents and experiences of their stay, generally with all the candor and terseness of fishermen, the record of each day's catch being kept methodically for several of the later years. Some of the entries in the experience department were quaint, original and realistic, and being, in some cases, embellished by pen and ink sketches, they were far more entertaining than, if not so artistic as some of the famous Hogarth papers on a similar subject. It was my intention to have made some extracts, but the short time at my disposal admitted only of my summarizing the rod record and noting the names of those who, like myself, had enjoyed the fishing and hospitalities of Camp Adams. I shall refer more fully to these further on, for the rod record was considerably augmented during the few days following.

Early to bed, and another night's sound sleep over, I was astir at 4 o'clock on Tuesday morning to make ready for my expedition to the upper waters of the river. The distance to be travelled was estimated at seventeen and a half miles, viz.: sixteen miles to Square Rock Pool and a mile and a half to the Forks, which are only four miles from where the great Northwest Miramichi originates in two brooks—the one running noisily down between two mountains on the west, and the other rising in flat and swampy land to the north. The distance from Square Rock Pool to the Forks, however, I found to be nearly twice as great as given at the camp, so that the day's journey was one of

nearly twenty miles. As it was to be made entirely by way of the river, a full description of my outfit will, no doubt, be both interesting and instructive to those who may contemplate similar undertakings.

Our vehicle of transportation was a boat, and the motive power a horse. The boat was twenty-one feet long, and built on the model of the ordinary baggage skiff used by lumbermen, being sharp at both ends. Its bottom was about twenty inches wide in the middle, the sides being composed of four lap-strokes each, of about three-quarter inch boards. These flared outward and were strengthened by timbers composed of juniper knees, which lapped over each other across the bottom and extended up to the gunwales, being sided to about an inch, and having a thickness of say two and a half to three inches at the throats. The stem and stern posts were of juniper and the sides and bottom of pine, the latter being protected by a false bottom, or shoeing of one-inch yellow birch, to protect the craft from the wear and tear of hauling over short portages, ledges and bars. At each end of the boat, inside, and extending from the stem and stern posts on both sides toward the centre, were knee boards about five feet long, five-eighths inch thick and six inches wide, with their inward ends firmly attached to the furring blocks. These formed spring-like supports for the knees of the steersman in guiding the craft, and were indispensable to him in his important work.

An eighteen-thread manilla tow rope was made fast through a hole in the stem, at a point about three inches above the water line. This was about sixty feet long, although it should have been a hundred to make easy steering and towing. The harness consisted of a blanket saddle, bridle, collar, hames and chain-traces, the latter being kept apart at the rear by a birch sapling stretcher about four feet long, to which the forward end of the tow rope was bridled. William Way, steersman and pilot, had his position, pole in hand, in the bow, while I sat comfortably aft, young Bob Way riding, as postillion, on the blanket saddle. The two, however, changed plates at times during the day.

Our camping outfit consisted of the men's tents and blankets, my own little fly-proof sleeping tent, rubber and wool blankets and air pillow. My camping kettle, ten inches high and of the same diameter, contained six tin plates, a tea pot, six drinking cups, a frying pan, pepper box, knives, forks and spoons, two pounds butter, two pounds sugar, one pound tea, one pound table salt—each of the four latter in separate covered tins. We had also, in a box, a few pounds of dried beet, some biscuits, a quarter of baked lamb, some tins of sardines and of Loggies' fried smelts, three pounds salt pork and a little whiskey—so that the expedition may be said to have been fairly outfitted and provisioned for two days.

All being in readiness, at 8 A. M. we started. Reaching the Falls at 8.07, the boat and its contents were hauled around the portage, a distance of about 150 yards, and at 8.15 we were again *en route*. The river bottom, for the greater part of the journey, was composed of stones, which, here and there, were small enough to be called gravel, most of them, however, ranging from egg size up to a foot in diameter. Ledges were also met with quite often, and these, with the boulders scattered promiscuously along the river bed, made the horse's path a rough one for a considerable part of the time. There were no places too rough for him to pull the boat through after our portage around the Falls, but, at times, it required no little exertion of motive power and fine displays of both strength and skill on the part of the steersman to guide our craft through such places as the rapids on the upper half of our journey, say between Crawford's Pool and the upper Chain of Rocks, that stretch, however, being only strong specimens of the rough waters of the upper Northwest.

For perhaps one-half of the distance between Camp Adams and the Forks the banks are wooded to the river's brink, chiefly with spruce, fir, pine and cedar, white and yellow birch, and, occasionally, ash and elm. Hemlock and juniper are conspicuously absent in this region. It is not easy to estimate distances along such a journey as that we were making, for our travelling equipage was a novel

one, our route neither by water nor land, its characteristics making it impossible to move at the same rate of speed for ten minutes together, while there was not a solitary established landmark by which mileage could be determined with anything approaching accuracy. I judged, however, by the time we had been on our way, that we began to enter the mountainous region at about ten miles from the Falls. Here the bases of great hills thrust themselves out, turning the river aside from its course, and there some "mighty arm of thunder-cloven rock," rising sheer perpendicular hundreds of feet upward, sent its dark shadows over the rushing stream, while, on the summit, giant pines, blasted by fire, but whitened by time's bleaching processes, stood, bearing witness, by their silent survival, of the destruction of the country's timber caused by the criminal carelessness of the hunters from "The Big River" (Nepisiguit), only about seven miles distant toward the north. All the country above Redbank, where we bivouacked for dinner, is suggestive of barrenness and desolation. Even the names given to the marked spots on the river are weird and ghost-like, "One-arm Pine," "Twisted Spruce," "False Pool," "Lone Pine" and "Silence Pool," sounding like the cadences of a dirge in minor chords. Along the banks of the river there is a fringe of comparatively young forest growth, none of the trees seeming to be more than half matured, but beyond this the whole face of the country has been clean swept by fire, and the igneous rock formations, which have thrust themselves up on every hand, bared of soil, and crumbling down their rude slopes with the action of frost, leave no room for hope that the upper region of the Northwest will ever be inviting save to the enthusiastic fisherman or nomadic trapper.

The experiences we all had during the time I had been on the river proved that the conditions were not favorable for fish to take the fly. Salmon and trout could be seen, for instance, lying in the Basin Pool, below the Falls, but they would rarely rise. The reason was that there had been a prolonged dry season, making the water low and very clear. We saw both

salmon and grilse, as we went along, that could not be induced to rise, and, therefore, stopped but a short time at some of the best pools, passing others without making a cast. In the first hour we passed Chain Ledges and Black Pool, both of which afford fine fishing when the conditions are favorable, but did not get a rise from the fish that were sulking in them. Approaching Three Spruce Island, I trailed my fly on the surface, and as we passed a heavy run, between two boulders, above which the water seemed deep, a grilse rose in fine style and was firmly hooked. An examination of the place, after the fish was landed on the shore of the island, showed that it was a small but well-formed pool, and as the christening of all such discoveries was a rule, we went through the ceremony, naming this one Smith's Pool. It is at the lower end of Three

Spruce Island, near the right bank of the river, say three miles above the Falls. We pushed on, and soon after 11 o'clock reached Redbank, where our boat was beached, the horse turned loose to feed on the abundant grass on the left bank of the river, a fire made and other dinner preparing arrangements begun. While Will and Bob were thus engaged I tried my luck in the gravel-bottomed pool which lies along the curving right bank of the river. Failing to get a rise, I waded the rapids above and climbed up what looked almost exactly like a ten-foot railway embankment, newly made of red earth, from the top of which I could see half a dozen grilse lying just where I had been casting. They wouldn't rise, however, so I joined the boys. We had dinner, and, after a stop of a little more than an hour and a quarter, all told, were on our way up river again.

[TO BE CONTINUED.]





## THE ROD AND REEL IN SALT WATER.

By J. LUTHER.

Few of the many thousands who love the rod and reel know of the glorious opportunities for enjoying their favorite sport that lie within a few miles of the metropolis. Within a little more than one hour's sail down the Bay, almost within the sound of old Trinity's chimes, lies the eastern border of a sister State, along the coast line of which, beginning at that well-known point, Sandy Hook to the reefs which form the shoals of Barnegat, lies an almost continuous happy hunting ground, along any portion of which the fisherman may, without let or hindrance, pursue his sport, limited only by his strength and enthusiasm.

Here he meets the lordly striped bass, fresh from his river and bay wanderings, migrating slowly, as the autumn comes on, toward his southern home; resting in his journey in the various holes or along the shallows scooped out or piled up along the undertow by old Neptune in his equinoctial pets; feasting on the fat mullet and sea clam, or chasing the sand crab back into his shifting house.

Here, too, as the tide ebbs and flows, that pirate of the coast, the bluefish, comes on his work of destruction, rushing like a flash of steely light over and through the slow breaking waves, driving the poor, scared menhaden in terror to commit *hari kari* upon the shore rather than sacrifice himself to the insatiable maw of his hungry pursuer.

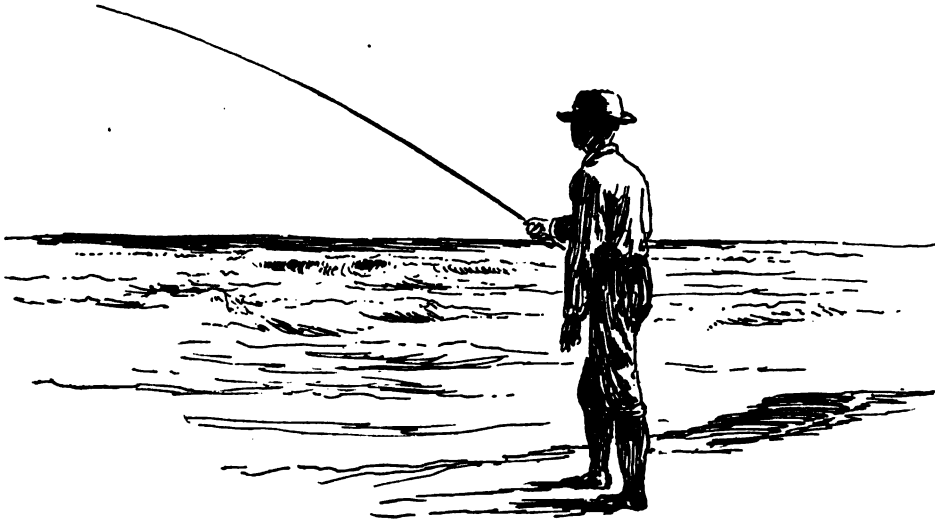
While, where any unfortunate ship, storm driven, has been left to the ocean's mercy on the shifting bar, or rocks raise their heads above the sand-covered bottom of the sea, those steady-going, stubborn fighters, the blackfish and sheepshead, pass their days, rolling sleepily through the cool, dark waters, feeding on the shellfish sheltered by the rocks and wrecks. And there again, further out, where the bar commences to raise its sandy sides to the deeper water, the weakfish, and that race horse of the sea, the Spanish mackerel, hold high revel.

Here, my brothers of the "gentle art," is a feast. Here are foemen worthy of your steel, of your patience, of your strength, your tackle, and, I had almost said temper, but remembered in time that this last element enters not into the composition of a true fisherman. At least it is not acknowledged, not admitted by the cult. So we will expunge this last element as a trait not worthy to see the light of day or appear in our too short account of our victories. Certain it is that, were we ever justified in yielding to this tabooed weakness, the surf fisherman should receive absolution for his sin, for here he meets no little fingerling whom the slightest twist of the wrist would send whizzing over his head to gasp and die on the green grass by the brook side, or hang dangling as high as Haman among the twigs and branches of some neighboring tree. No babbling brook receives your silken line, and gaudy fly or squirming worm. No dainty exquisite, dressed in the most correct costume of the carpet sportsman, has a place in the wild sport of the surf. Here on the Jersey sands, with the whole wide Atlantic face to face with you, the rushing breakers sweeping around and almost over you, you battle with the bass, bluefish, blackfish or sheepshead. Your twelve or fifteen-thread line reaches out one hundred or two hundred feet through the swirling sea, with no guarantee that it will ever return to the reel again. The bass or bluefish at the business end of the line asks no favor of you—he is abundantly able to take care of himself—and when, after ten or fifteen minutes of work on your part and seeming cussedness on his, relations have become strained to a breaking point, your casting line comes home with a weak and tired air, minus your hooks and leader, you are apt to be tempted to be emphatic in your remarks. One, however, soon becomes used to this sort of treatment, and that very fact adds much to your satisfaction when you do succeed in landing a fish. You have a very large feeling of

satisfaction and self-congratulation, and a desire to pat yourself upon the back and say well done. You feel that your captive is not a victim, but a strong foe met and conquered in a fair fight, with the chances vastly in his favor. Verily, one has reason to be proud of his conquest.

Surf fishing is, emphatically, a manly sport, requiring, as it does, quickness of the eye and hand, strength of body, and, as I said before, unlimited patience. Those who are afraid of work, and that real hard work entailing a drenching certainly waist high, and probably

a howling wilderness of stunted pines, scrub oaks and sand; the now exclusive Elberon but big, deserted, unfenced fields, and Monmouth Beach and Seabright not even dreamed of. I commenced my novitiate as a surf fisherman under the instructions of a past master of the art, one of the only three fishermen then using the rod and reel on the coast from Sandy Hook to the shoals of Barnegat, since which time I have not, to my knowledge, missed a season. And yet, as far back as that day is, counting by years, it seems to memory but yesterday, and stands on my calendar of pleasure as a



up to the neck, had better not attempt this sport. As one cannot escape the toll old ocean requires of those who meet his fighting children, sooner or later, early in the day or late, the debt has to be paid and a drenching taken. I am inclined to think that, with the exception of perhaps salmon fishing on some rough and swift river (and some will not even admit this), the surf fisher does a greater amount of work (as a class) than any other follower of old Izaak Walton.

"Many years ago," as the children's story books say, how many the writer dislikes to think, but before Long Branch had risen to the dignity of a fashionable watering place, Ocean Grove and Asbury Park on the south were but

red-letter day, being, as it was, but the forerunner of many happy ones to come. But enough of remembrances, pleasant as they may be to the individual, charming as the picture it may paint of the past. Still, to the unlucky reader who is forced to wade through them to obtain what information the prosy one may have to impart, they can be nothing more than a bore. To avoid this infliction upon my unfortunate readers (should there be any such) I will return to my mutton.

Experience, practice, or whatever name one may choose for the purpose of designating that teacher whose pupils only attain final success after many failures and defeats, is of course in this sport, as in all others, the great master.

Still some of the rough places in the path can be smoothed over, little byways and short cuts pointed out by an old hand, that will materially assist the beginner and render his progress pleasanter.

First, then, and at the same time one of the most important, is the style of rod best suited for this fishing. Of course it is capable of many and great variations as to the cost and equipments, more generally known as dressings, material, etc. The writer, for his own use, prefers one made of bamboo, or, more properly speaking, reed, and having a length of from nine to twelve feet, made in one piece, or at least of not more than two pieces, the handle forming one part, and having a length of from eighteen to twenty-four inches, and the tip constituting the remaining length. Joint rods, such as one generally finds in the stores, composed of three or four pieces, should be avoided as one would the "evil one," as they are incapable of standing the casting strain necessary in throwing the heavy sinker required. Personally I have yet to see the rod of this class, no matter what its cost or what its construction, that would retain its shape or last a season through, while, on the other hand, a reed rod, properly made and cared for, will last several seasons. A brief description of the construction of a rod of this kind may not be amiss here.

Select a straight reed, having a gradual taper. From this cut a piece, say of about seven feet in length. The extreme tip or smaller end should be from about one-quarter to one-third inch diameter, while the butt may run from one inch to one and a half inches in diameter. The next step will be to procure a piece of white pine (or, for that matter, any wood one may chose) about two feet in length. Cut this into the shape of a cigar, the greatest diameter of which should be from two to two and a half inches. Into the larger end of this handle bore a hole of sufficient size to admit the big end of the reed, and having a depth of about six inches.

Into this hole in the handle insert the larger end of the reed, first taking care to fill the hole with some strong glue sufficient to firmly hold

the two pieces of the rod firmly together. The rod is now in a condition to dress, as whipping on of the line guides is termed.

For this purpose (dressing) procure from some fishing tackle store one dozen "anti-friction" guides of six graduated sizes, two of each size, one large double-holed eye and two screw reel plates. In dressing the rod commence within about six inches of the tip end, and wrap or whip on with strong waxed thread two of the smallest guides on opposite sides of the rod. Follow these with two more of the next largest size about ten inches further along the rod, taking care to keep all guides on either side exactly in line with the preceding ones. The remaining guides are in this manner put on, always increasing the distance between succeeding pairs; until a sufficient number have been whipped on to have the last pair come within about one foot of the handle. Then take the double-holed eye, and, after fitting it snugly to the extreme end of the rod tip and placing the holes on each side of it directly in line with the guides, fasten it in position with glue, after having done which wrap or whip with waxed thread from the place on the rod where the metal of the eye ceases, toward the guides about two inches, thus preventing the edge of the metal from fraying or cutting the line, which it otherwise would do. After having done this, take the handle of the rod and shave it down from the middle to the point where the reed enters the wood, until it is formed into a gentle taper. Then commence and wrap with strong fishing line from a point about two inches beyond the wood of the handle, back about four inches on the wood, thus strengthening and preventing the splitting of the handle. After the dressing of the rod is finished, a thin coat of glue should be put upon all wrappings, which, after it is dry, should be covered by a coat of paint.

There only remains now the placing of the reel seats. This is easily done and requires no directions, with the exception that they should be placed a little in front or above the middle of the handle, and in such a position as to hold the reel in a direct line with the guides.

The style of reel for this fishing is, to a certain extent, like the rod, subject to great variations both in material and cost. There are at the same time some absolutely necessary qualifications which it must possess, such as strength, balance crank, multiplying and size, which last-named quality should be sufficient to carry six hundred feet of fifteen-thread line without crowding the spool.

Of the line itself it is necessary that it should be closely laid, and of the class sold in the shops as Cuttyhunk bass, costing anywhere from \$1.50 to \$4 per spool.

In regard to the hooks to be used, even a beginner cannot go far astray in his selection, with the exception, perhaps, in those used for bluefish, which are snelled upon wire, while for bass fishing, upon three-ply gut snells.

Having now perhaps given some idea how a surf rod may be constructed at slight expense to any one wishing to make their own rods, I will turn to those parts of, or elements in, the sport whose mastery is far more difficult to attain and at the same time to explain, than the making of a rod. Take, for instance, casting, striking and landing. Proficiency in these can only be attained to any degree of perfection by patience and practice. By actual experience casting is of course the greatest difficulty the would-be fisherman has to overcome, and, until he has acquired some skill in the art, his chances for success are, to say the least, slim.

While the writer cannot, within the scope of this article, fully describe or illustrate the cast in a manner sufficiently clear to be of any great benefit to the beginner, there are still certain landmarks on the way to proficiency with the rod which he may be able to point out to the novice, and so far assist him in his task.

Casting on that portion of the Jersey shore with which this article deals, has, through local necessities, local peculiarities which have been forced upon it.

Two distinct methods, called the "under and over cast," exist to day, both born of necessity, and both equally efficacious under their varying conditions which called them into existence.

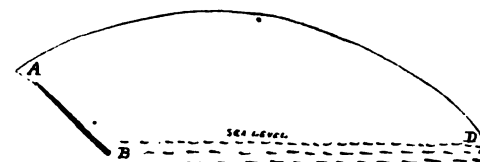
The under cast being used when the wind

was blowing in the fisherman's face, and a low trajectory (as riflemen would say) was necessary; while exactly the opposite conditions would prevail when the over cast would be most killing, viz.: when the wind was behind the fisherman, and would, as a consequence, act favorably upon the high line and carry it seaward.

Perhaps a glance at the following drawings will best illustrate the difference in the two modes. In the *under* cast the line assumes this shape or course in its flight. Let "A" represent the end of the rod end; "B" the castor's position at the moment of casting; "C" the slow upward curve to the point where the bait or lead enters the water at the end of



the cast. For the sake of convenience we will use the same letters and their positions to illustrate the over cast. In the under cast there are really two courses, as the drawings show.



It is therefore the most difficult to acquire. In the over cast only one. Each style has its champions, each its advocates, but all agree that he who has command of both modes or styles is the best prepared rodsman for surf fishing.

So much for the different styles. Now for a few points necessary to be observed in either method. Suppose, for the sake of illustration, that the beginner stands ready, equipped with rod and reel, for his first attempt at casting.

To begin. See that your line is laid evenly and tightly upon the reel spool, and from this carried through the various guides to the eye at the end of the rod's tip, the reel itself being

in place in front of the right hand, and about twelve or fifteen inches from the butt of the rod.

To the end of the line attach a two-ounce sinker. When this is done reel the slack line in, unless, if you are using, say, a ten-foot rod, the sinker is suspended on the line at about four feet from the rod's tip.

The left hand should now be placed along the rod about two feet in front of the reel, the right hand remaining behind the reel, with the thumb resting upon the back side of the reel spool, in a position, when casting, to act as a brake or stop.

The right foot should now be placed slightly in advance of the left, while at the same time the tip of the rod should be carried horizontally backward until it is nearly behind you. Then, with rapid forward and upward motion, make the rod tip describe about the third of a circle in the air, and, just before it reaches the end of the above described motion, raise the thumb slightly from the reel spool, thus releasing the line and allowing the lead to fly off in the direction imparted to it by the upward and forward sweep of the rod. Then, as the lead commences to lose the impetus given it by the cast, and is approaching the water, the thumb should, by slight pressure on the spool, gradually retard its revolutions, so that, when the lead does reach the water, your reel will not have overrun (as the term is—in other words, snarl the line), and at the same time, by thus avoiding the snarling, the fisherman is in a position to strike and fasten any fish touching his bait; which, were his line snarled, he could not do. The foregoing description of the cast, faulty as the writer knows it to be, will, he hopes, be sufficiently clear to at least be of some assistance to the beginner in surf fishing. The novice should not be discouraged by repeated failures. It is only practice that will enable him finally to accomplish easily and gracefully this feat of casting a clean, straight line, and to put his bait at any point within 175 to 240 feet distant he may desire. Once having conquered the difficulties of casting, he will have within his reach many an hour's enjoyment along old ocean's edge.

The landing (or, as our trouting friends are fond of terming it, "the killing") of a large fish is the surf is only second in importance and difficulty to the casting, requiring, as it does, skill, judgment, and the ever necessary experience. The weight of a fish in the rolling, tumbling surf, is often, of itself, sufficient to part the casting line. Care is required, even after a fish is so exhausted that he can make no further fight for freedom. The undertow or back set of the retiring wave is a foe that often breaks the line when the fish could not, and robs the fisherman of his game. He is too apt to consider an exhausted fish a landed fish, and thoughtlessly to put a strain on his tackle at this point that he would not dream of subjecting it to during the fight. To avoid this most provoking disaster one should, while always keeping a taut line on his fish, only exert the full power of his tackle against his captive when an incoming sea is approaching the shore. Then, at the proper moment, the tip of the rod should be carried backward over the shoulder, and the butt end of the rod pointed toward the fish. The effect of this act, together with the force of the incoming sea, will cause the fish to rise with the lap of the wave, and thus be thrown forward upon the sand. Once there, a slight but steady strain will be sufficient to hold the fish until the sea has retreated to the undertow; but the neglect of this rule of landing has, in the writer's personal experience, caused the loss of many fish which otherwise would have been saved.

The *Larbracidæ* or striped bass is perhaps the most wary and, at the same time, uncertain fish that one meets in surf fishing on the Jersey coast. Possessed, as they seem to be, with an acute sense of hearing or power to distinguish and dislike any unusual noise, silence becomes a necessity. When fishing for them, loud talking or shouting, even rapid motion on shore near their feeding grounds, has, within the writer's experience, driven them away, or caused them to stop biting.

Added to this is their love of change, causing them to move from one ground to another. Apparently without any reason abandoning the locality they have been frequenting for some

days, they will move away in a night, and the fisherman who flatters himself that he knows the locality of their to-day's feeding ground may to-morrow, when he repairs to his choice spot, find himself, to use a vulgarism, "not in it," his game having changed their residence during the night. In this characteristic they resemble the Irishman's description of the uncertain flea: "When you go to put your hand on him he is not there, sur." But with all its uncertainty, the work it entails and the disappointment that frequently follows the most carefully laid plans for the capture of this fish, it is a glorious sport, and one successful day more than pays for a week of disappointments. An illustration of this comes to my mind as I write.

A friend of the writer, and a good rodsman, realizing that eternal vigilance was the price of bass, agreed that, as his employment compelled him to spend some hours each day upon the ocean beach, he would keep a watch for bass signs and let me know at once should he discover any. One beautiful morning shortly afterward, long before the writer was thinking of leaving his comfortable bed, a servant, knocking on the door of the bed-room, reported that Mr. D. (the friend spoken of) was on the porch and wanted to see me at once. Upon going down stairs I found him waiting for me with the pleasing intelligence that he had a few moments before seen bass breaking water (feeding) at the mouth of a certain creek which makes its way into the ocean about a mile from the house. It took but a few moments to make our preparations, and we were soon on the way to have a try at the capricious gentlemen. A few moments more and we stood beside the creek's mouth, watching for a break, and meanwhile putting tackle in order. This done, we had time to enjoy the surroundings before our game should reveal their location to us.

The sun was just tipping the horizon, and the east was one mass of color, while the ocean beyond the bar, and as far seaward as the eye could reach, lay calm and still, save where some stray breeze brushed its surface into dancing ripples, or some lonely fish-hawk,

speeding down to its smooth surface in pursuit of his breakfast, sent jets of spray glistening into the sunlight from his swift dive. In-shore small seas were slowly breaking on the shallows of the bar, and then, coming slowly in, to spend their little remaining force upon the white stretch of beach.

"There they are, see!" and D.'s voice struck my ear in a low sharp, whisper, just in time to draw my attention from the beauties of the summer morning to the splash made by a broad tail as its owner drove his powerful body through a sea in chase of some feed. "Yes, I see them," I answered. "Make your cast, D., over there. I will go south of you." Even as I spoke D.'s rod swung back, and then came forward in a swift, upward curve, his reel hissing and his line making a long, graceful flight, fell into the water fully 150 feet away. The next moment mine followed suit, and we were ready for callers. Two, three, perhaps more moments passed, then my line slacked a little. The sea is moving my lead in, I thought, and, acting upon this idea, I reeled in the supposed slack. The next instant the line was rushing away eastward, seemingly of its own volition. A tremble, followed by an instant's pause, and then again a rush, all taking place far quicker than I can write, but which explained to me fully the cause of the slacked line. With a slight, and yet quick motion of my rod's tip, I drove the hook home into the fish's mouth. For a moment, an instant, rather, of time, he stopped, astonished, angry. Then, as if in that space of time having collected all his strength together, he rushed away seaward, my reel humming, shrieking, the line fairly burning the skin of my thumb as I attempted, by putting pressure on the line, to turn his course either up or down the beach. His straight-away rush was too rapidly exhausting my supply of line sent me. Again and again I tested the strength of line and rod, almost it seemed to me to a breaking point, before I succeeded in turning his course to the northward, in which direction I was following him as fast as my legs could carry me along the sand. D., realizing the situation, had in the meantime reeled in his line and stuck his rod

in the sand; was running along beside me with the gaff and offering all sorts and kinds of advice, practical and otherwise. Our fish, now finding himself unable to get away by previous tactics, changed them. Turning sharply shoreward, he came in at a lightening speed, causing me to run backward and reel in the slackening line as fast as I could, while I tried my best to prevent his gaining the necessary amount of loose line for a jump. Experience acquired in many a former fight, where I had had strained relations with his family, taught me that this was a move, only the forerunner of a jump, when, if the line was loose enough, my friend would attempt to throw the hook from his jaws. And so it proved to be here. In a second he threw himself into the air, shaking the hook at the same time as a terrier dog would a rat; but fortunately I had succeeded in keeping the line moderately well in, so that, when he threw himself clear of the sea, a sweep of the rod backward held the hook in its place, and he went into his proper element once more, a loser in strength, at least. A few moments more of rush, dive and jump, of

straining line, bending, swaying rod, a little while longer, and the steady strain began to tell even on his huge bulk. Slowly, fighting every inch, the line began to shorten, and the last struggle was made almost in the undertow. Then the dead, soggy weight at the line's end told of a fight that was done. The bending rod tip raised the fish into the top of a curling sea, which, when it broke, the sand left him there dead, stranded, without a kick. The gaff hauled him further up the beach to my feet. A king dead in all his glorious armor of burnished silver and copper; a fighter *par excellence*; a prize no sportsman could despise, and one who, two hours afterward, tipped the scales at twenty-one and one-half pounds. Seven more followed this capture ashore, that morning, all ranging between four and a half and seven pounds, and every one of them true to their family reputation, only yielding when the power to resist had vanished.

So ended one of many happy days it has been my fortune to spend with rod and reel along the ocean's border.





## SEARCHING FOR SALMON IN MAINE—THE EAST BRANCH OF THE PENOBSCOT.

BY OLD IZAAK.

Our party consisted of three, Julius H. Wheeler, of Mount Clair, Dr. George S. Ward and the writer, all of Newark, N. J. We had expressed our provisions and heavy impedimenta to Mattawamkeag a week before our start, in care of Aleck McClain, one of the wardens whom Hon. H. O. Stanley, Fish Commissioner of the State, had kindly recommended as one of the most expert guides in the State, hence we started with only our tackle and light satchels. We went by way of Fall River, to Boston, the evening of July 10, 1884. There we took the Boston and Maine Railroad to Bangor, where, changing cars, we reached Mattawamkeag at 9 P. M., July 11. McCain met us with a hearty shake of the hand, which made us at once feel at home.

There is a great deal expressed by the manner of shaking hands. I like a hearty grip and an honest look square in the face. None of your pump-handle business for me. None of the surveying of a fellow from head to foot, taking his measure with a smirk as he looks down upon your smaller stature. No, sir! Gentlemen anglers don't like this sort of thing. McCain pleased us at the first sight, and we liked him more as we became better acquainted.

We put up at the hotel kept by S. B. Gates. Early next morning our wagon was at the door, and we mounted our seats for a drive of thirty-five miles. Our provisions had preceded us by stage to the Sherman; so, with a light load and a smart team of young horses, we drove merrily along a good road at a brisk trot. We took breakfast at the hotel at Molunkus, F. Coburn, proprietor; then drove on rapidly to Sherman, where we stopped for dinner. For some time before reaching Sherman we had been in sight of Mount Katahdin. Seen from our point of view, it resembled a reclining dromedary with neck stretched along the ground.

At Sherman we changed horses and adjusted

our cargo, taking in our boxes of provisions. As we started off from the main road and struck into the woods, I expressed a strong regret at the change of teams.

"These horses are no better than a logging team," said I.

"That's just it," said the driver. "Better slow and sure. The team we left would have smashed us all to flinders. They are too lively for this road. We'll show you the worst road you ever travelled over."

"Bah!" said I. "Rough roads are no novelty to us. We have bumped over rotten corduroys, and I don't believe you can beat them for cussedness."

"Well," he said, "if you don't cuss before we are through, then you are a blank, blank sight tougher than I take you to be. If you ain't used to cussing, just get Aleck to do it for you. He has a wonderful flow of the blank, blankest kind of language every time he rides over this road."

Said I: "If he can beat you, then I'll acknowledge his eloquence."

"Oh!" said he, "I'm nothing to Aleck."

Here we went into a hole with a thump that nearly pitched me over the horses' heads and almost broke my back, but the driver held me by the coat tails.

"What's your hurry, sir? Don't get out here. You'll mire in the mud."

I shook myself together and got a good grip of the seat as we started again. The road was through a deep slough lined with tall reeds.

"This is Moses' birth place," said the driver.

"Moses wasn't born. He was found in the bull-rushes," said Wheeler.

"Well, at any rate he had a wet berth."

"Just so. Go 'long, you blank, blank, lazy brutes."

Pulling through the wet ground, we came to a dryer but more rugged way. Thump! thump! rattle! jolt! As we ran down a steep

decline, a jolt and sudden stop sent Wheeler from the back seat right on top of my head, almost breaking my neck.

"Oh!" said the driver, with copious flow of cuss words, "this is nothing; wait awhile. All the dyspepsia will be knocked clean out of you."

"All right; only save my vitals, heart, liver and gizzard, especially gizzard. I shall want all I've got to digest the eloquence of Maine backwoodsmen."

"Now, Mr. Morrell, I'm sorry you think us so profane. Woa! blast yer! Where in all blank, blue blazes are you going to?"

This time it was the doctor, who was making frantic efforts to swim on top of his head.

"See here, Doc, if you want to change seats just say so. I've no objections to the back seat."

"Thank you very much, but it's very comfortable to have you in front. When I pitch forward I prefer something soft to fall on."

"Very good, Doc, I owe you one."

We drive on in a slow, plodding way. Nothing of the funeral order of march; oh! no. Things are too lively. The road seems to have been built—no, not built, but run—through a water course full of big boulders. For a few rods we get along very well, and we conclude the worst is passed. Now we ascend quite a hill, then down we go at an angle of forty degrees. The driver puts on the brake; not on his jaw tackle, however. He is getting up steam, plying his whip and inventing cuss words. The brake slips from his hand, and rattle, jolt, bump, smash, we go to the bottom of the hill. I held on hard, stood up, sat down four or five times suddenly, then concluded I would get out; did get out, landing on all fours so as to come down easy.

"What's broke? Anybody hurt?"

"No, we're all right. Astonishing!"

I picked myself up and got in again. Feeling myself all over, I found no bones broken.

"Well, let her rip. After that I'll risk the wagon standing anything."

"Are there any worse places than this?"

"Well, yes. I think," said Aleck, "that you will agree that there are a few."

"Go ahead, driver. Our lives are insured. We won't walk until the wagon breaks down. Take a fresh grip on the brake and let her fizzle."

On we go. The road gets worse and worse. I am pounded to a jelly; every bone in my body aches, especially the part of the human frame that Nature has padded with a heavy coating of flesh. The road is in a rushing torrent of water.

"Doc, get out your fly rod; there ought to be trout here."

Resting the horses every ten minutes, we found black flies, or rather they found us. They seemed to like us. Our fly oil was in our valises, and they were stowed so tightly we could not open them without unshipping our whole load.

"Never mind. Drive on. They don't trouble us much while in motion, or perhaps the lesser evil is overlooked in the greater."

"Yes, I admit the backwoods roads are some."

"Merciful Providence! What is it? Anybody lost his false teeth? Anybody killed? Where's my pipe?"

"This cussed hard travelling makes me think of my sore arm and the tough old fight I had with that bear," said Aleck.

"Aleck, tell us how you got so badly chawed up."

"Not now, boys. Wait until we get into camp and get comfortably fixed."

"Are we all right? Then get along, you lazy brutes."

"Doctor, what keeps you so still?"

"I'm keeping my teeth shut tight to prevent biting my tongue off."

"Oh!" that's it. I thought you was taking a nap."

"His naps all begin with an R, and his snoozes are all sorts of pain," said Wheeler.

"I thought a doctor could sleep at any time and at a moment's notice."

"Any common time," said Doc, "but the meter and the rhythm don't seem to hitch."

"Mr. Morrell," said McClain, "are you willing to admit that Maine takes the cake for backwoods roads?"

"Ye—ye—yes. Hold on! driver; down brakes!"

"The brake is foul of the wheel. Trim ship, boys! We will be upset!"

We were nearly over that time. If the brake had any feelings it would have felt hurt at the driver's cuss words.

The worst of the road was yet to come. McClain and the driver who drove the lively team from Mattawamkeag, who was still with us, and were to go as far as our first camp, preferred to walk the remaining distance. They told us we had better do the same, but we wanted to know just how bad the road was, and concluded to stick to the wagon. Couldn't be possible that any worse road was to come. It now was so bad that we could no longer talk. We held our breath and held on for dear life. How we longed for a corduroy! Our wishes were soon gratified. We came to it and sighed with relief. That sigh stuck in our throats and was bitten to pieces, mixed with bits of tongue, lips and cheeks. We spit it out; we didn't like it. We tried to follow the doctor's advice and shut our teeth tight. No use. We had to open our mouths to ejaculate "oh!" We tried to shut our teeth together again, but couldn't. The driver was plying his whip smartly. He said he would give us a taste of a rough road, and he did.

"We own up beat. Yes, beaten to a consistency of pounded tough beefsteaks."

The driver's jaw kept time with his whip. Cuss words flew about like a swarm of bees. "The woods were full of them." The doctor asked the driver if there was anything else he could do as well. He said he thought that was "his best hold."

All roads are alike in one respect—they come to an end; so did this. Getting out of the woods into a clearing, our horses struck into a full run. Lo! before us was the river. On a fine grassy slope was a house, known to all that region as Hunt's Place. The panting team came to a stop amidst a half dozen hunters and farm hands, who gave us a noisy welcome. The proprietor, Mr. C. Boyington, gave us a cordial greeting.

"Come in, boys, out of the rain."

"Well, so it does," said Doc, "but I had not noticed it, though I see I am pretty well wet through."

Getting out our traps, the first thing we did was to open our valises and smear our hands and faces with tar oil. The flies and mosquitoes were as bad in-doors as out. Boyington soon had a smudge in a tin pan in the sitting room, and after a few minutes' rest we sat down to supper. The doctor and I had gone into the woods almost broken down by sickness and overwork, but our appetites had begun to assert themselves, and we did ample justice to a meal that would not have disgraced a well-kept public house.

Repairing to the sitting room, we found an addition of two men, who had been fishing up a brook near by. They had a string of fine trout that rejoiced the eyes of our doctor. While the doctor was admiring the trout I was studying the men. One of them was a splendid specimen of an athlete, about twenty-one or two years of age, fine featured, with an expansive forehead and an eye like a hawk. I thought it probable that he was one of the guides McClain had engaged for us. I spoke to him and found I was correct in my surmise. His name I found was Clarence Peavey, and his father, to whom he pointed, was another of our guides. I said I would give way to the doctor as the oldest of us three, and he might have McClain, our chief guide. I would take Clarence, and the elder Peavey should paddle Wheeler. This arrangement was satisfactory, as we knew nothing of the qualifications of any of them. I congratulated myself on my choice, and had no reason to repent it.

We inspected our canoes, two of which were hauled up on the shore bottom upward. McClain's canoe, on which he prided himself, had not yet arrived, but was expected soon by wagon from Mattawamkeag. These canoes were the genuine Indian built birch bark, and models of beauty, though I found they were heavier than the average Adirondack boats, and that it took two men to carry one over a portage.

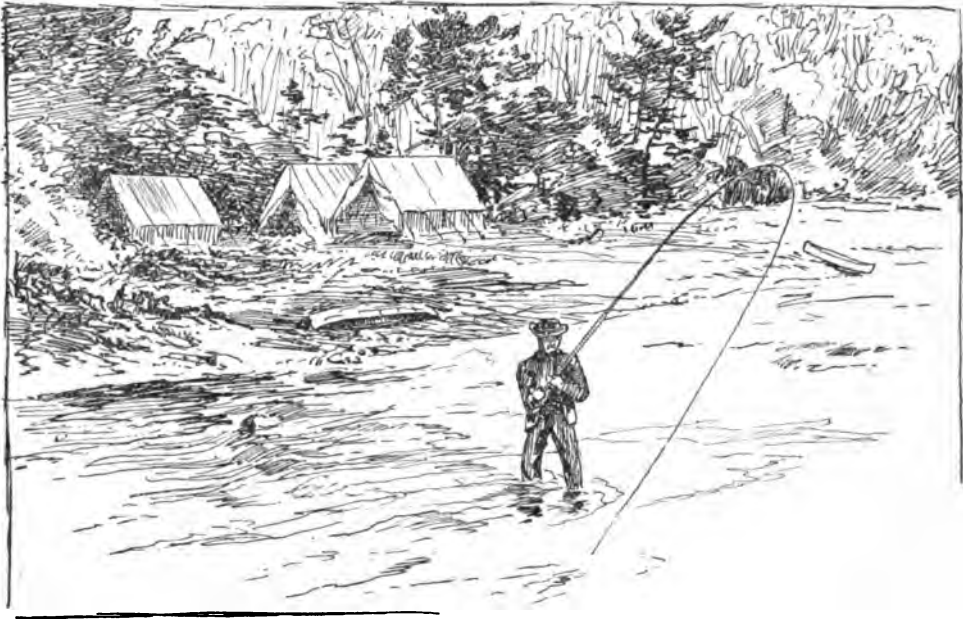
Being very much fatigued, we retired early, but found very little sleep, for the bedroom was full of mosquitoes; their hum was bad enough, but their bites were worse.

"Good morning, Doc. What put your eye out?"

"The pesky mosquitoes kept me awake all night, and I find they have bitten me badly. I shall wear my head net, hereafter, night and day."

"Hallo! Julius. How did you sleep?"

beautiful and the scenery enchanting. We poled along near the shore to escape the swift current. From Boyington's for fully six or seven miles there is a stretch of deep water, with no dangerous rapids, and we made swift progress. I employed the time admiring the charming river and getting acquainted with my guide. Both completely took my eye. Clarence was born and brought up right here in the woods, and is never so happy as when in his bark canoe, with paddle or setting pole



CAMP NEAR SPRING BROOK.

"First rate. The mosquitoes sung so loudly that I covered up head and ears in the blanket, and I slept like a top."

We were soon ready for a start, but McClain's canoe had not arrived. We waited until after 10 o'clock, and then decided that we would leave McClain with the doctor, and we would go ahead and prepare camp.

Our load of provisions and the tents were placed on a large batteau, and two additional guides poled it ahead of us. We soon overtook them, as we were so much lighter, and then led the van. The morning was

in hand. He assured me we should have a glorious time when we returned, for we should run the rapids all the way from the great falls to Mattawamkeag, fifty-five miles.

"Where we are now, Mr. Morrell, is what we call still water, though you can perceive the current is very swift."

"Yes, I see; so swift you could not paddle against it except in a few places. You could not do much without your setting pole. Don't you find it hard work?"

"Well, it is work, of course; but I am used to it and can keep it up all day, for it is, next

to running the rapids, the work I like best."

"I should think running the rapids would be easy work, for you have only to sit still and guide your canoe."

"You'll think differently when you have seen us at it a while. It is pretty hard work, but the excitement gives you more pleasure than any other kind of work and takes off the strain. There goes an otter. Did you see him?"

"Yes, but he popped into his hole so quick that I could not have told what it was. What is that swimming across the river?"

"That is a squirrel."

"They are good swimmers and not afraid of wetting themselves. There is nothing of the cat about them."

"Are there many fur-bearing animals left in this section?"

"Yes, quite a good many. We have no more beaver, for the last I knew of were killed two or three years ago. I'll show you a good beaver dam, though, on Panther Pond, or Lounksoo Pond, as it is generally called. Lounksoo means panther. We have otter, mink, muskrat, bear and caribou, all good furs, and bringing good prices."

"What do you think of our prospects of getting salmon?"

"I don't know. There are plenty of salmon in the river, but I never knew of any being taken with a fly. There are plenty caught in drift nets. The water is very high, too, and that may or may not be in your favor. What do you think of the river? Does it look as though you could take them with a fly?"

"No, it does not. I have not seen a salmon pool yet, or anything like what I believe to be a spot that would contain resting salmon. Nor have I seen any place where a good cast can be had by wading. We will hope for lower water, but it looks very much as if we should have rain."

We had poled up the river about seven miles, when Clarence said:

"This is the spot that McClain selected for your first camp."

I did not like it, but thought it might look more inviting on closer inspection. I jumped

ashore and looked about to pick out a level spot for our tents. About a hundred thousand black flies gave me a most cordial welcome. I had, before landing, smeared my face and hands with tar oil, but I found I had not been profuse enough in its application. I had a two-ounce vial tied by a cord to my vest button, so as to be handy. I put on enough, I thought, to drive all the insects distracted, but they were not to be driven off. I put on a linen hood, made to fit tightly over the head, leaving only the eyes, nose and mouth exposed. They bit through that; my ears swelled to twice their usual thickness; my eyelids began to swell and close.

"A smudge! a smudge!" I cried in desperation.

Clarence soon had a fire going, and a big pile of wet brush and ferns thrown on top. The other guides now came up and soon had the batteau unloaded and the tents up. McClain now put in an appearance with Dr. Ward, and the elder Peavey with Wheelersoon followed.

I have fought flies and mosquitoes in the Adirondacks; I have been becalmed in a yacht on the Passaic River on the Jersey salt meadows, and thought I knew something of flies and mosquitoes, but I here had greater experience.

"A smudge, or I die!" sang Wheeler, as he mounted the bank to the plateau on which our tents were pitched.

"Morrell," said Doc, "tuck this head net in good under my coat. The pesky insects crawl in somewhere."

"I should think so," said I. "There is a stream of blood running down each side of your nose."

"First blood for the doctor," cried Julius. "Here, we'll soon put a stop to this. More smudges."

We all set to work cutting down the underbrush and building smudges. The smoke set us all crying, and we were decidedly uncomfortable. Then it began to rain, and our beds were not yet made. All hands were busy, the guides cutting trees for firewood and we clipping spruce and hemlock for bedding.

"Supper ready, boys." It was Clarence

who had prepared the meal for us, and we had good appetites for it. We sat on the logs in our rubber suits, for the rain was pouring down pretty lively. A slapjack a half inch thick, and just the size of the frying pan, a slice of ham, a quart of coffee to each of us, and then we lighted our pipes and began to

feel a little better natured. Camp-fire yarns and sparkling wit flew about. We told some stories of woods life in the Adirondack and Allegheny mountains, and then called upon McClain to tell us how he got so badly chewed up by that bear.

[TO BE CONTINUED.]



## ROD MAKING FOR AMATEURS.

BY FITZ JAMES FITCH.

[Continued from Page 306.]

Copal varnish, and that known as "wearing body" coach varnish, is the best for rods. If of good quality it will not crack or become gummy or sticky. It should not be diluted with spirits of turpentine, and no "driers" should be added to it, but it should be used as it comes from the shop of the dealer. It should be applied to the wood with what is known to the trade as a varnish brush, and in a warm temperature. Unless the room in which the varnish has been kept is very warm, it is better to heat the varnish until the vessel from which it is to be used feels quite warm to the touch. This renders the varnish more limpid, and causes it to flow more readily, fill the pores of the wood, and spread itself over the wood more smoothly and evenly. When the first coat becomes dry, which will probably be at the end of a week or ten days, add a second, and later a third coat. If, two or three days after the application of a coat of varnish, the rod is exposed to a bright sun and the wind, it will greatly facilitate the drying. When the third coat has become thoroughly dry and hard—not until then—moisten a rag with boiled oil and sprinkle upon it some pulverized pumice stone, and rub or scour each joint and part varnished until the whole becomes perfectly smooth and even. If it is found that the coating of varnish is not sufficiently thick to admit of this, put on one or two coats more and rub down and polish as before.

Next, the ferrules should be secured. I regard this simple and easy method the best, viz.: Insert one prong of the round pliers into the other end of the ferrule, and, closing the pliers, hold it. Put into the other end of the ferrule a few scales of shellac—hold the ferrule over the gas or a lamp until the gum is melted, turn the ferrule until the inside of it, where it is to come in contact with the wood, is coated with a thin film, and then, while the ferrule is

still hot, put it on the joint. If it sticks before it reaches the point designed, heat it again and put it in place. It is well, before putting on the ferrule thus, to mark upon the stick the exact point to which the female ferrule should be forced on. By no means use rivets in securing ferrules. Should you break a rod in fishing, it is most likely that the break will be at or near a ferrule. If so, and the ferrule has been secured in the method I have described, by holding it for a moment over two or three burning matches the shellac will be melted, and the section of wood remaining in the ferrule can easily be removed—the joint cut down to fit the ferrule—if heated again by matches until the shellac adhering to the ferrule is again melted—the ferrule put on the joint, and the angler can go his way rejoicing. But if the ferrule is riveted on, the chances are that the angler will not have the tools with him to drive out the rivet and repair damages, and the only alternative for him is to go to his temporary home and get a duplicate joint, if he has one, or to lose much time and temper in restoring the broken rod to its *statu quo*.

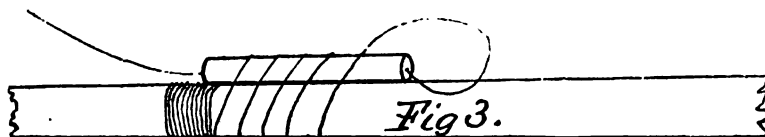
After the ferrules are on, put the rod together and see if the joint fits properly. It is very possible the ferrules may not pass into each other as they stand; if this is the case, examine and see if some of the shellac used in cementing the female ferrule has not run or been forced into the upper half of the ferrule. If so, remove the surplus shellac with a bit, gimlet or other suitable instrument.

Now put the rod together and turn the joints so that it will be straight, or most nearly so, and mark with pen and ink, or camel's hair brush and water colors, the places at which the rings are to be put on. Of course they should be in line with the rod. I put three rings upon the butt, or first joint, the upper one being placed immediately below the ferrule;



the other two I place nearly equi-distant between the ferrule covering the joint of the handle and rod and the upper ring. Upon the second joint I put five rings, the upper one, as on the butt, just below the upper ferrule; and upon the tip I put six rings beside the top ring. In a light rod it is better that the spaces between the rings be short, as when the rod is bent the strain upon the rod by the line is much less. The rings should be small, ranging from an eighth to one-fourth of an inch in diameter. The ring keepers need not exceed half an inch in length, and should be made of very thin metal. The best I have used I cut from an old silver pencil case. The silk used should be of medium fineness, smooth and even; machine sewing silk letter B answers a very good purpose. Of course it may be of any color; I prefer black, as it contrasts or accords

Next select one of the widest keepers and place upon the rod, and on, or in line with, the mark previously made, and, pressing the keeper up closely against the whippings that have been made, draw the silk over the keeper to hold it, and continue to turn and wind until nearly one-half of the keeper is covered; then again pressing with a finger on the silk to hold it, with a knife under the keeper bend it sharply, close to the whipping, at right angles with the rod; then wind four or five whippings around the rod alone, and until you have covered about the space the ring and keeper will occupy; place one of the large rings over the keeper, laying it on the rod toward the ferrule, and pressed closely against the keeper, and bend the keeper down over it, and by means of a triangular file, back of your scissors or other instrument, bend the keeper around the ring



well with any color one is likely to give a rod, and will not fade.

*Whipping on the rings.* Unwind and wax slightly with beeswax a few yards of silk. Rewind and place the spool in a box or basket at your right hand. Take the first joint in your left hand a few inches below the upper ferrule, allowing the handle to pass under the left arm. With your right hand put the end of the silk over and once around the rod. Secure the end of the silk by placing the left thumb upon it. With your right hand draw the silk over the end held by your thumb, and turn the joint from you, with the fingers of the left hand, holding the silk taut with the right hand, and at a slight angle with that wound upon the rod, in order that each whipping will press closely against the preceding one, until three or four whippings have been made, then place a finger of your left hand upon the whippings to prevent the silk from unwinding; with a sharp knife in the right hand cut off the end of the silk, thus wound under, close to the whipping.

and close to the rod; next resume winding over the keeper and continue until the keeper is covered. Then take a small ferrule, or a piece of quill an inch in length, lay it partly upon the whipping and wind the silk around it and the rod, leaving a space of one-eighth of an inch between each of the windings; four times cut off the silk five or six inches from the rod; put the end of the silk up through the tube and draw it until all the silk unwound is pulled through (see figure 3); then push or draw the tube upward from under the whippings around it, take hold of the upper loop of silk presented and wind over the end of the silk that had passed through the tube, until the whippings that were over the tube are wound upon the rod; next take the end of the silk and pull it upward until all the slack caused by winding it round the tube has been drawn under the last four whippings; with a knife cut off the few inches of silk unwound. The ring is on, in a sightly manner, and both ends of the silk are securely wound under. The remaining

rings of course are put on in the same manner. It is better always to wind on the upper ring upon each joint first, and you can then see to wind those that follow in line with it. It is well also to put a whipping of about half an inch close against the male ferrules on the second joint and tip, and a narrow one, say one-eighth of an inch, on each side of the ferrule covering the handle joint.

With a small brush apply a coat of the same varnish to the whippings alone, exercising care in covering all of the whippings and avoiding putting any upon the rod. When this is dry put an additional coat over the whole rod. When this has become hard slip the ring ferrule over the reel seat, and put on, with shellac, the butt ferrule; this completes the rod.

If it is made of shad-blow, with sumac handle, of the length and size above described, it will weigh about six ounces, and will be well balanced, very light in the hand, capable of throwing well fifty feet of line, and quite strong enough for taking trout not exceeding one pound in weight.

A word to the beginners in rod making. Commence making your rod several months before you want to use it, and when you have commenced, don't be impatient to see how it will look, or how it will feel. Take time to do everything well; above all, don't hurry in the varnishing. If you put on a second or third coat before the preceding one is dry, it will require months to harden the varnish, and the amount of handling it will be subjected to in that time will wear and spoil the appearance of the rod.

I must beg the general reader, if he has had the patience to follow me to this point, to pardon both the minuteness aimed at and the prolixity attained, remembering that it has been written to aid those who are ignorant of the way, but who may wish to follow in the footsteps of one of the many amateur rod makers.

It may be asked: Why go to the expense of buying tools and rod mountings, and incur the labor of tramping over the hills in search of timber, sawing it out, caring for it during the

one or two years required to season it, and then working like a journeyman mechanic for days, possibly weeks, in constructing a rod that, when finished, will not surpass, if it equals, one that can be purchased from the skilled artisan for a few dollars? I can make no answer that will satisfy such a questioner. But if those who are doomed to a sedentary life, whose working hours are mainly spent in offices and counting room, school rooms and laboratories, hospitals and rooms of the sick and dying, behind counters of the merchant, in factories of the manufacturer—let any of such, on his first holiday, walk out of Man's town into God's country, inflate his lungs with pure, life-giving air, set his blood coursing through his veins with vigorous exercise, feast his eyes upon the beauties Nature spreads before him, and while doing this, remember that his mission is to find a tree suitable for rod making; when the tree is found, and, with the permission of its owner, cut, and maybe carried home upon his shoulder—as he seats himself at his late dinner, be it sumptuous or plain, ask him how he has enjoyed his holiday. His answer will be, "I never enjoyed a day more."

Or, if at the beginning of a long winter's evening, after the last meal of the day is despatched, such a one feels the drowsiness indicative of brain weariness creeping over him, he may ask himself where he shall find rest and relief—something that will change the current of his thoughts, and speed the slow-footed hours of "a night that, like a foul and ugly witch, doth limp so tediously away." Shall it be the opera or theatre? The corner grocery or grog shop? Let such a one repair to the workshop, selecting some material, go to work, begin a rod, a rustic chair, flower stand, anything, it matters not what, so long as he saws, planes and works in carrying out some plan or design, and, before he knows it, the clock tolls ten—eleven! He goes to bed refreshed, and to sleep. What poor, hard-worked human nature needs is to get out of the rut—to have some hobby to relieve the aching brain and perturbed mind of the plodder. There is none more easy, more pleasant than rod making, with its necessarily accom-

panying thoughts of babbling brooks and quiet pools, of fresh and green fields.

Some of us think that amateur rod making pays.

—

Since most of the foregoing was written, another trouting season has come and gone. It did not bring to my creel the usual number of trout, and circumstances beyond my control prevented me from devoting the usual allotted months to fly fishing. Still, the summer has given much of angler's pleasures and brought to me a new revelation as regards rods.

It was my good fortune to attend the Anglers' Tournament, held in New York in October, 1882, and to witness the wonderful casting made with split bamboo rods. I had with me a six and a half ounce *amelanchier* rod of my own make, such as is described above, with which I was able to cast, without any preparatory practice, about seventy feet of line. I entered my name as a contestant, but, after witnessing the casting of others with a split bamboo of less weight, I thought "discretion the better part of valor," and did not enter the lists. What I witnessed then and there gave me food for thought, which culminated in my ordering from a celebrated manufacturer a split bamboo rod.

According to instructions given by me, the rod was made ten feet three inches in length, with a sumac handle, such as I here described, one and one-eighth inches in diameter. It weighed five and a half ounces. It reached my hands just before June 1, which is the opening of my trouting season. June 2, 1883, found Ben Bent, the genial companion and brilliant writer, so well known to all readers of *THE ANGLER*, and myself wading side by side down one of the beautiful but sadly depleted trout streams of Sullivan County. The stream is a series of rapids or "rifts," and deep, wide pools. The trout were mainly in the pools, and to reach them it was often necessary to make casts of fifty to sixty-five feet.

It was my first experience with a split bamboo, and it was so different in action from the rods to which my hand had been trained, that I made awkward work of it. A brief experi-

ence satisfied me that, for casting a long line, striking and hooking the fish, the split bamboo excelled all other rods of which I had knowledge. I think I did not miss a fish that took the fly in its mouth during the day's fishing. In one pool, where Ben fished before me without taking a trout, I took twelve, three of which weighed three-quarters of a pound each (large trout for the stream), for the simple reason that I could cast ten or fifteen feet farther than he, and reached the spot where the trout lay. I had a fine day's sport and killed more than double the number of fish that Ben did. He took the "beat" very good-naturedly, attributing justly my success to the superiority of my new rod.

I will add, in closing this egotistical but truthful little story, that it has been my good fortune to fish very many years with Ben Bent as a companion, that we fished equally well, and that our aggregate scores for the years 1880-1-2, in which we fished together about a month each year, differ but two fish. On the occasion of which I have written, Ben used a five and a half ounce *melanchier* rod, of his own make, very like that described by me. As a postscript I will add that, in a letter dated at Tadousac, Canada, August 25, 1883, in which Ben gives an account of a month's sport in Canadian waters, he mentioned in a quiet, unobtrusive way, after praising the performance of my hornbeam rod in landing a trout of three and a half pounds weight, "that for casting, hooking and care of handling, we both think our 'bamboos' as near perfection as possible."

Although Ben and I have met often since our fish in June, and have exchanged frequent letters, this was the first intimation that he had given me of his possessing a split bamboo. Possibly his reticence was attributable to the fact that he had an indistinct recollection of having said to an old, white-haired friend, who was sounding the praise of a split bamboo rod, something like this:

"There is no such bigot as a late convert!"

I was requested to give a history of split bamboo rods, and a description of the way in which an amateur can make them. Since the

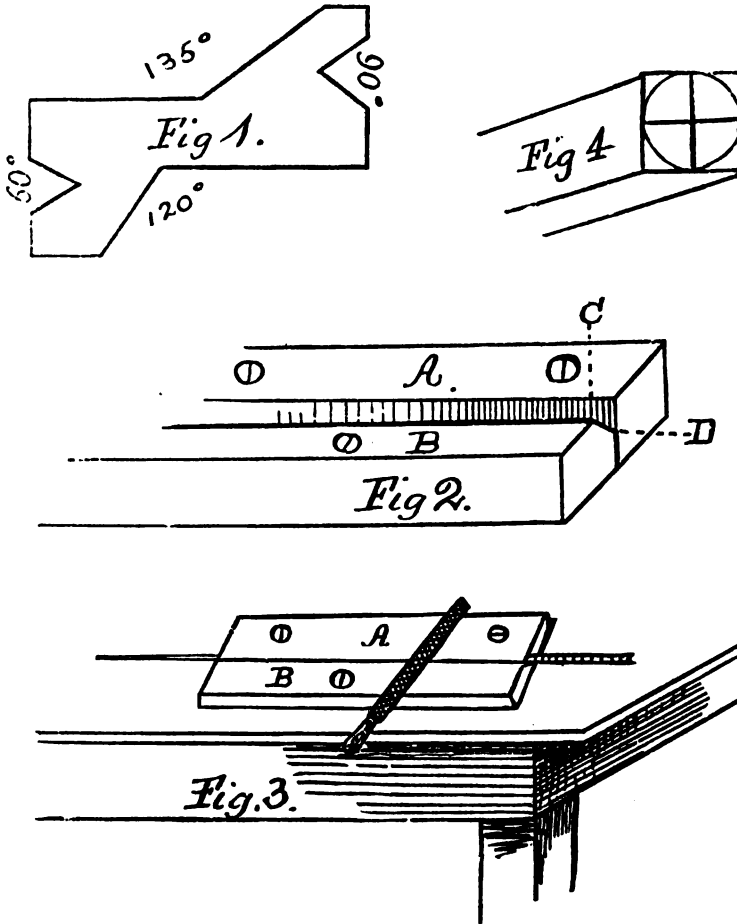
request was made much has been written and published in THE ANGLER relating to both branches of the subject. As I can add little to that information thus given by others, I will not attempt compliance with the request.

That something may appear in this connection upon the subject, by permission of the

"After numerous trials with various tools, I find that I can work out materials for a rod, in the least time and with least waste of material, by using a wood file.

"The accompanying diagrams show my mode of procedure.

"Make a gauge of tin or sheet metal like



writer I will append a short article kindly furnished me by "Water Gap." It renders very simple and easy that which I have supposed most difficult in the construction of split bamboo rods. It also reveals the ingenuity of the author and his ability as an artist:

#### SPLIT BAMBOO RODS.

"With some hesitation I give the result of some experiments with split bamboo.

Fig. 1, having one side and end for six splint, the other for four splint.

"Have two strips of hard wood each ten inches long, one inch wide and half an inch thick (Fig. 2, A and B).

"For a four splint tip arrange them as in Fig. 2, by fastening one strip (A) with two counter-sunk screws to a bench about five or six inches from its edge, as in Fig. 3.

"Work out a short piece of bamboo to approximate size, trying it with the ferrule to be used, and fitting so that the ferrule on each end will go on neatly without removal of the enamel of the bamboo.

"Take your second cleat or strip (B) and remove a corner with a plane, C D, at one end of the strip, making the crevice between the cleats the exact size of the larger end of the splint, and cutting at such taper as will make the other end of the crevice the size of the smaller end of the splint. Then, having removed a part of the extra material from the splint with a plane or knife, lay the splint into the crevice with the enamel side toward you, and file it horizontally until one side of the splint is nearly straight. Turn the splint and treat the other side the same.

"Now test with notch in end of gauge and see if proper angle has been secured approximately.

"Remove any lumps or elevations and return splint to the crevice, and file until the file reaches the cleats.

"When moving the splint to the right *hold*

*it firmly down in the notch or crevice*, and gradually take a position with the file more and more to the left, so that file and small end of splint may meet at small end of crevice.

"After a few days' experience I found that I could fit the splints for a four-joint tip, ready for gluing, in one hour, with no loss of material by splintering, as followed my attempts with the plane. I do not advance this as the *best* or the *quickest* way of preparing this good but refractory material, but simply claim that any one with small mechanical skill can make a good fit of the splints without waste.

"In fitting ferrules make the small end of one joint the exact size of large end of next. Let this be the size of the inner or female ferrule, wrap with silk for outer ferrule, having the wood for about three inches beyond the ferrule of the same size, and as it is in the inside of the ferrule.

"Use no ferrule on a trout rod of more than two and one-half inches in length, and the elasticity of the rod will not be appreciably lost at the ferrules."

[CONCLUDED.]



## THE BEAVERKILL.

By S. K. PUTNAM.

Many years ago a hardy set of lumbermen ran immense rafts of logs down the Beaverkill when the water was high during the spring freshets, hence the law declared the river navigable and open to all. At the head waters, where the stream is small, it has been taken up for two or three miles by a fishing club, but from there down to where it joins the East Branch of the Delaware, the Beaverkill is free to any and everybody. You will find no barbed wire fences across it, nor any signs forbidding trespass, but grand riffs, one after another, and pool after pool. The stream is from fifty to two hundred feet wide, and you have full chance to try any length of cast you may desire.

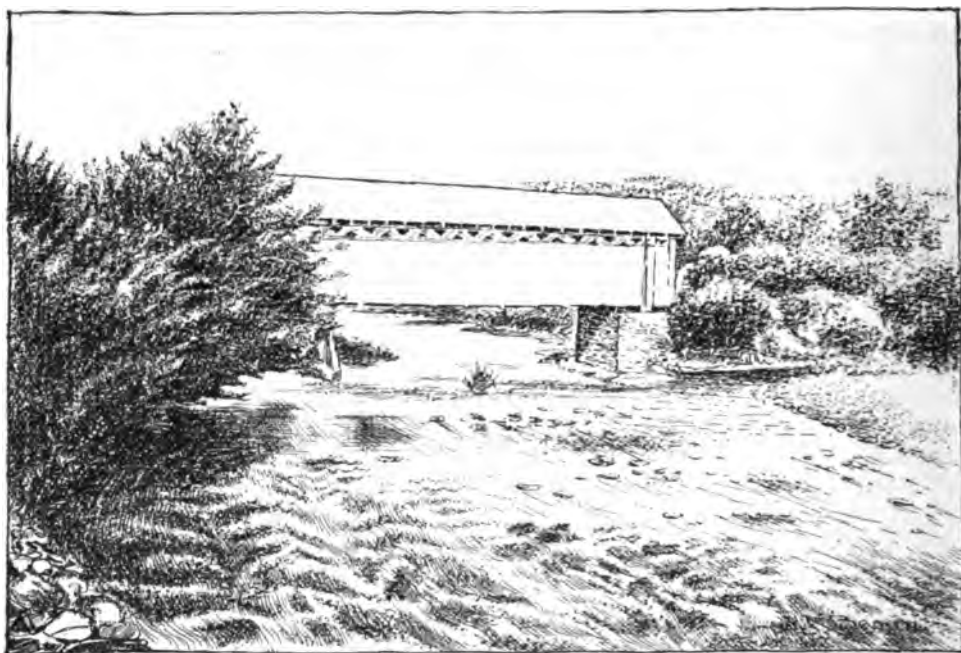
Do not get the foolish notion into your heads that the stream, being free to all and easy of access, is overcrowded with fishermen. Of course many go there, but the stream is so large that there is lots of room. Thanks to the New York, Ontario and Western Railway, to the regular fishermen and to the farmers along the stream, it is kept well stocked with trout. Although tons of fish are caught there every season, it does not seem to diminish the supply. The local farmers are a sensible class of people, and recognize that the city fisherman brings them money and profit, and the landowners do not kill the goose that lays the golden egg by raising their prices and trying to "bleed" the visitors. As there are exceptions to all rules, you will occasionally find a "hog" among these folks, as you will find the same kind of an animal among fishermen sometimes. Board is reasonable, and you always seem welcome at any farmhouse if you drop in about lunch time. The charge for lunch is generally about twenty-five cents. Board may be had from four to seven dollars per week, and you will be charged \$1.25 per day for transient board. Livery is also to be had at very fair rates, and nearly all those who take boarders can generally furnish a horse and carriage when called for.

As the Beaverkill is in the counties of Sullivan and Delaware, it is within the Forest Reserve, and the season does not open until May 1. The only way to get there is by the New York, Ontario and Western Railway, from the foot of Jay or Forty-second streets. Get off at either the station of Livingston Manor or Rockland. The former is not on the Beaverkill, but on the Willowemoc, a good, large trout stream, that flows into the Beaverkill about a mile below Rockland village. Parties who are going up the Beaverkill prefer getting off at the "Manor," as there is a good road over the mountain that strikes the river at Ellsworth's (Beaverkill P. O.). Good board may be had at this house or at the place kept by a Mr. Davidson. The writer generally goes to the town of Rockland and stops at the tavern kept by Montgomery Dodge, or, as he is locally termed, "Gum" Dodge.

Now as to the fishing ground. Keep in the main river as much as possible, and don't try many of the brooks that flow into it, although Spring Brook is an excellent place if you wish to fish without using high wading boots. This brook flows into the Beaverkill about one and a half or two miles above "Gum's;" is fished by everybody, and immense quantities of trout are taken from it each year, yet there seem to be just as many left. By all means steer clear of Berry Brook. This stream flows into the river about four miles above Rockland, *but don't go there*. There are trout there, but the meanest set of small pirates own the pasture lots through which the brook flows, that your life will be worried out of you before you have fished half a mile. You will just hook a fish when you will hear a little squeaky voice behind you saying, "You know my rules, twenty-five cents a head for fishing on my property." You turn around and behold an immense, hungry-looking dog, accompanied by a poor apology for a man, dressed in a worn-out, faded set of overalls tucked into a rusty pair of cowhide boots. This is the lord and master

upon whose domain you have unwittingly trespassed. You chuck him a quarter in disgust and continue your fishing. After you have gone a few rods you climb a fence and again hear the same squeaky voice pronouncing the same words. You turn in indignation at this second demand, but you see a different colored dog, but just as big and just as hungry-looking; the same suit of clothes accompanies him, but the thing in them has a different face,

and follow the road down to the river, where there are no dogs or pirates. I never heard of any one who had "sand" enough to fish Berry Brook its full length. I would like to meet some one who did. The dogs get bigger and hungrier-looking as you go down this stream to the Beaverville. I would like to find out how big the last dog is. Don't attempt to argue with any of these Berry Brook lords, as they are not open to argument. They claim that



BRIDGE OVER THE BEAVERKILL ABOVE WHICH BILL HARDY MAKES TROUBLE WITH CUSS WORDS AND STONES.

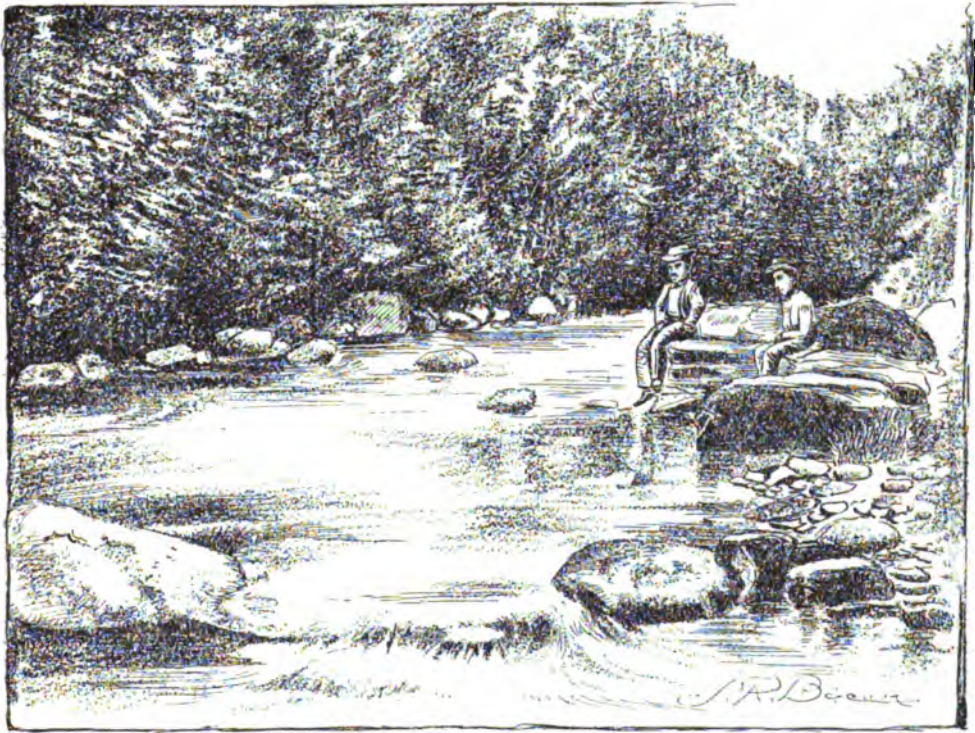
and you at once realize that you have passed from the two-acre domain of pirate No. 1 and you are now upon the small patch of ground owned by pirate No. 2. You pay him his quarter and think you are free for a while, but before you know it you are addressed by pirate No. 3, and he is accompanied by a bigger and hungrier-looking dog. Perhaps you have plenty of "stay" in you and lots of quarters in your clothes, and possibly you pay No. 3, but by the time that No. 4 comes along with his big, big—and awful hungry-looking dog, you give it up

they can't have their crop trodden down without pay. As you have been fishing through a cow pasture, you fail to see the crops, but that don't matter—a city chap is not supposed to know a field of wheat from a pasture lot—it is twenty-five cents or the dog, take your choice. Berry Brook is a small stream, but it has lots of trout, and what a nice thing those farmers could make out of it if they would encourage the fishermen, like all the others do.

To get to one of the choicest parts of the river, drive up the road from Rockland, which

winds along the river, until you get to Ellsworth (Beaverkill P. O.), then turn to the right and drive over the mountain. After driving about a mile you will again strike the river; put up your horse at the first house—owned by a Mr. Jersey. Arrange with Mrs. Jersey for lunch, and walk up the river about half a mile and wade in. Now for about a mile you have the grandest set of pools you ever saw, and

some being as much as twelve feet in diameter. The water rushing down over a long, steep rift, boils into the head of this pool, and is carried along with a swift current around and among all these great boulders. When you for the first time suddenly get a view of this grand pool, you involuntarily stop for several moments and enjoy the great beauty of it. Then you quickly and quietly drop your fly



HOTCHKISS ROCKS ON THE BEAVERKILL.

when you arrive almost opposite Jersey's house, just at the bottom of a long riff, where the river makes a sharp turn to the left, you will behold the most magnificent pool of all. Imagine a stretch of water from sixty to seventy-five feet wide, and say three hundred yards long, with a nice slope on the one side, down which you can wade far enough to be able to cast your fly to the opposite side. The water is from six to eight feet deep for nearly the length of the pool, and it is filled with boulders of all sizes,

into the right spot, and are well paid by landing one of the large beauties with which the pool abounds. If you work carefully you may land six or seven.

About this time you begin to think of Mrs. Jersey, with her hot dinner and her cookies and cream, and you reel up and start for the house. If you are a stranger, she will have the pitcher and bowl from her spare room placed on the front porch, all ready for your wash before eating, but if you are one of the regu



lars, you will go through the shed, where the creamer is standing, and thence around back of the house by the great water wheel that does the churning, to a spout where you will do your washing. Mrs. Jersey's dinners are not fancy ones; they are good and substantial, and her cookies and cream—oh! my! After dinner you go back to the big pool and coax three or four more of the beauties into your creel; then you will try your luck down the long rift that extends from the pool to where the river turns to the right and enters another large pool. The river flows on in this style clear to Rockland.

At Ellsworth's there used to be a large mill-dam that furnished water to run a tannery, but the hemlock bark gave out years ago and the tannery rotted away. Under this dam was a famous place for large trout, but two years ago the dam was broken down to reclaim the land covered by water. The pool is there—part of it, but is now nothing compared to what it used to be. Immediately below here commences a long rift; it is very rough and steep, and hard to wade on account of the large rocks, but it is well worth the trial. From here down for a mile or more the river is very rough, but the fishing is excellent. A good view is obtained of part of it from the road running above it along the mountain side. The road here is like a niche cut, from one to two hundred feet above the water, in the side of the mountain that rises almost perpendicular. The fishing is good anywhere from Rockland down to Trout Brook, but it is particularly good from about two miles above Cook's Falls down to about a mile below Horton's. At Cook's Falls the river takes a sharp turn to

the right, and on the left of the stream, just at the bend, is quite a bluff, faced by a long ledge of jagged rocks, in front of which is a large, deep pool, where the swift water is almost churned to foam. During the fishing season you can hardly find an hour in which you may not see one or more fishermen trying their luck at this point. The writer saw a two and a quarter pounder taken from this pool last summer.

Now, friend angler, try the Beaverkill, and you will not fail to like it. The Adirondacks may be very nice for those who have plenty of time and money. The cost of the fare to the latter place would pay your fare to and from the Beaverkill and your expenses while there. You could almost go to the Beaverkill, get your fish and get back to your office in the time that it takes to get to the Adirondacks. There are many fishermen who think they cannot indulge in their sport because they have not time to take a week off. The Beaverkill is just the place for these. The writer often in summer goes up Friday evening, fishes all day Saturday and returns home on Sunday. The fishing is going to be better this coming season than ever before, as the game wardens were very watchful last year, and did not allow many so-called fishermen to catch and carry away the small trout. The writer saw hundreds and thousands of trout too small to catch, last summer, but this season they will have grown to a catchable size. All the dealers in fishing tackle know the Beaverkill, and can give all information as to style and size of flies to be used there. THE AMERICAN ANGLER will be glad to give any information that may be asked for regarding this grand river.

## HOW I CAUGHT THE PIKE.

By JOHN TAYLOR.

One day last summer I started out from Algonac, a small town located on the St. Clair River, for a day's fishing. I had in the boat my ten-year-old boy Charlie, George the punter, and myself. Our destination was the Chimatahgon, one of the numerous streams which branch off from the St. Clair and flow through the marshes into Lake St. Clair. The Chimatahgon is about ten miles long, and has a width of about 150 to 300 feet, and a depth of eight to twelve feet of clear, cold water, with a current of about three miles an hour. This stream forms the southern boundary line of Walpole Island, an Indian reservation of the Canadian Government.

After arriving at a good location we anchored our boat and threw out our lines. After spending an hour or so, with fair success, Charlie, who was fishing over the stern of the boat, felt a bite and started to reel in his line. After getting it about half way to the boat I saw the pole bend nearly double, and said to him:

"Quick, Charlie, let go the handle of your reel, or your pole will break."

As he did so the line spun out, and I knew that he had a big fish on. He then commenced to reel in again, when the fish stopped running, but, before getting it near the boat, the resistance was too much for Charlie's strength, and he said, "Here, pa, you take it; I can't pull him in." Not wishing to lose the fish, I did so, and brought the fish up near the top of the water, so I could see it, and found it to be a good-sized pike. After playing him until he ceased his long rushes, I drew him toward the boat, so the punter could get the net under him, but, when within ten feet of us, and I still drawing him slowly in, I was surprised to see a good-sized perch come out of his mouth and attached to the line. As soon as the pike saw the perch in front of him he made a savage lunge for it, took it in his mouth and went for the bottom. I let the line play out freely,

and started in mentally to understand the situation as follows:

Charlie hooked a perch, and, when he felt the bite, started to pull in. Mr. Pike, happening to be in the immediate vicinity, took a fancy to Mr. Perch and swallowed him, which accounted for the sudden bend in the pole. Now, thinks I, the perch has undoubtedly swallowed the hook, so, even if the pike swallowed the perch, there is no hook exposed to catch him on. Now what to do puzzled me for I wanted that pike.

I concluded that the best thing to do was to wait until Mr. Pike had the perch well down his gullet before trying to bring him in. Well, I waited about ten minutes, before I started to reel in, and, when I did, I reeled in very carefully and gave Mr. Pike plenty of line in his rushes, and he was lively and made a good fight. Finally he turned up on top of the water about fifty feet from the boat, and I proceeded to draw him toward us, aiming to keep him sideways to the boat so that the strain would be across his mouth. When he came within ten feet of us he slowly turned his head directly toward the boat, and again out came Mr. Perch as before. He made a lunge, caught the perch and sailed for the bottom again. Now then, says I, I will wait until you have swallowed it good this time. So I laid the rod down on the seat with the reel free, and, picking up my own rod, went to fishing. I waited so long this time that Charlie, who was deeply interested, thought that the pike had about digested the perch. I thought so too, so I again picked up the rod with the pike on the line, and said to George, the punter:

"Now, George, I am going to try and draw that pike up sideways to your end of the boat. You stand ready with the net, and have it so you can slip it under him without frightening him, and be sure you get him the first time, for you will only have one chance at him."

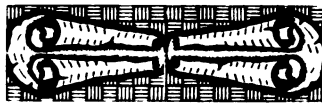
"All right," says George. "You get him within reach and I will do it."

I then proceeded slowly and carefully to reel him in, and held my pole so as to draw him quartering toward us, so the line would draw across his mouth as before. All went well until I had got him near the boat again, but he was just out of reach of the net, and, if I drew him a little nearer, he would be heading directly toward the boat, and I foresaw that the line would again pull out of his mouth. I held him there a moment, and he was pretty tired, but he still held on to the perch. I attempted to draw him still nearer, and, just as I suspected, out came the perch from his mouth. Mr. Pike seemed to have enough, however, and did not lunge for him this time, but started

slowly for the bottom at an angle of about forty-five degrees. As he was headed for the boat, before he got very far under he was near enough for George to reach him with the net, and with a dexterous dip Mr. Pike was lifted into the boat, unattached to either hook or line.

We weighed him, and his weight was just five pounds. The perch weighed half a pound, and had the hook clear down his gullet.

Charlie's catch that day was another pike that weighed seven and a half pounds, five black bass from two to three and a half pounds, and a lot of perch and pickerel, but he acknowledged, before the day was out, that he could not yet catch as many as his father, but he still brags that he caught the largest fish.



## NOTES AND QUERIES.

[Under this Department Heading queries relative to Angling, Ichthyology and Fish Culture will be answered.]

### Here's a Chance.

I received a copy of *THE AMERICAN ANGLER* a short time ago, and presume it came direct from your office. I always make it a practice to acknowledge the receipt of anything that I consider *good*, either from the press or private hands. I really do not know how folks find out my address, situated as I am right in the heart of the bush. Fish and fishing brought me here, and I think I have struck the El Dorado for that business, but would like a little more company during the fishing season, particularly gentlemen who understand the art and take pleasure in fishing. If you should know of any party of gentlemen who are in search of pastures new this coming season, I shall be happy to receive them. I can supply them with tent, boat and all camping requirements, and make *no charge*. Of course they would have to supply their own grub. My reason in so doing is to get this place better known among the angling fraternity, and will be pleased to give either you or any of your fishing friends who are contemplating an outing this season, every information.

G. F. DYER.

*Sowerby, Algoma, Canada.*

### Best Fly for Rainbow Trout.

In an issue of *THE ANGLER* "B. B. S." makes inquiry as to the flies to use for rainbow trout in the Willow River. I can perhaps aid him a little with a leaf from my own experience. I wish I could settle the question as to whether they are rainbow trout in that stream or not, for your benefit and my own.

It is five years ago this month since I caught trout—two kinds—in the Willow River, near Hudson, Wis., with artificial flies. I used

that day three flies tied on No. 10 Sproat hooks, and nine-foot single gut leader, a March brown for tail fly, coachman for first dropper and brown hackle for second dropper, and it was notable that every trout hooked took the March brown. I fished in same waters a couple of weeks later, with same cast of flies (and several others), and also with worms for bait, but without getting a rise. Caught common brook trout and other kinds, said by local fishermen to be rainbow trout, with which the stream had been stocked a few years previous.

My largest fish weighed one and a half pounds; smallest was about a six-inch fish, and the species was about equally divided. They were caught above Green's Mill in the swift water, and I could see no particular difference in game qualities, or, if any, it was in favor of the brook trout of our Eastern waters.

ESSEX.

*Haverhill, Mass.*

### A Good Florida Score.

Mr. W. L. Clampffer sends us an excellent score made by him from March 18 to March 25, in Tampa Bay, Fla. His headquarters were at St. Petersburg: 289 Spanish mackerel, total weight 560 lbs., largest 4½ lbs. and 28 in. long; 43 sea trout, total weight 130 lbs., largest 6½ lbs. and 26 in. long; 7 redfish, total weight, 35 lbs., largest 8 lbs. and 30 in. long. The water was rough; wind S. and S. W.; live minnows used as bait.

The Fishers' Angling Club, of Rochester, N. Y., has elected these officers: President, Thomas W. Fraine, Rochester; vice-president, H. M. Stewart, Rochester; secretary, E. M. Thompson, Fishers; treasurer, H. H. Adams, Fishers. This club has planted 40,000 young trout the past year.

### Binocular Vision of Lateral-eyed Fishes.

After a careful examination of the movement of the eyes of our common fresh-water fishes, I have come to the conclusion that the statement made in a number of works that the eyes of fishes are different from most other vertebrates, in that the two have separate fields of vision, is not true. If a line extending through the centre of the pupil to the centre of the retina were the actual axis of vision, then such lateral-eyed fishes as the fresh-water sunfishes would have separate fields of vision; but I am convinced that the true axis extends through the anterior margin of the ovate pupil to the posterior side of the retina. The spot of most distinct vision is this posterior portion of the retina, and on this spot the images formed in both eyes coincide.

When the fish is quietly swimming in the water this true axis is directed horizontally forward. This is true, whether the fish has its body horizontal or not. The movement of the eyeball, to retain a horizontal direction of the true visual line, is a rotating one on the apparent optical axis; the rotation of the ball is not very noticeable, except in those fishes that have a dark band across the eye. One of those best marked for this purpose is the black-banded sunfish (*Mesogonistius chætodon*, Baird, Gill). There are quite a number of species marked with distinctness enough to show the rotation well, and the movement is an interesting one to watch. When the body of the fish is almost perpendicular, the eye retains its natural horizontal direction; this is true, whether the fish is swimming obliquely upward or downward.

The medium in which fresh-water fishes live gives them a chance to see a great distance only in the horizontal direction, and the proper adjustment of the eye would make, under usual conditions, the optical axis take this direction. To me it seems impossible to explain the constant revolution of the eyeball on any other hypothesis except that given, viz.: that the optical axis extends forward instead of sidewise.

When a fish wishes to eat anything, either at the bottom of the pond or at the surface of the water, it swims directly toward the object; and in this case the eyes are instantly adjusted in line with the body, so as to bring the image of the particle desired upon the posterior portion of the retina. In this case they lose their usual horizontal position.

If a fish wishes to turn to the right or left in the water, the first movement is that of the eyes in unison in the direction of the turning. This would be entirely unnecessary if the apparent axis was the axis of most distinct vision, as one of the eyes would see all that was to be seen on the side of the turning. After this movement of the eyes the body turns enough to bring the eyes into their normal position, then there is again a movement of the eyes, and next a movement of the body. This causes a peculiar jerking motion of the eyeballs during the whole time of the turning of the body.

### DESCRIPTION OF FIGURES—BANDED SUNFISH.

A represents the fish swimming horizontally, and the black band across the eye coincides with the one across the head.

B represents the fish swimming leisurely downward toward the bottom. In this case the black band is still vertical on the eye, and does not at all coincide with the stripe on the head, showing that the eye has been twisted in the socket and retains the same horizontal direction it had at A.

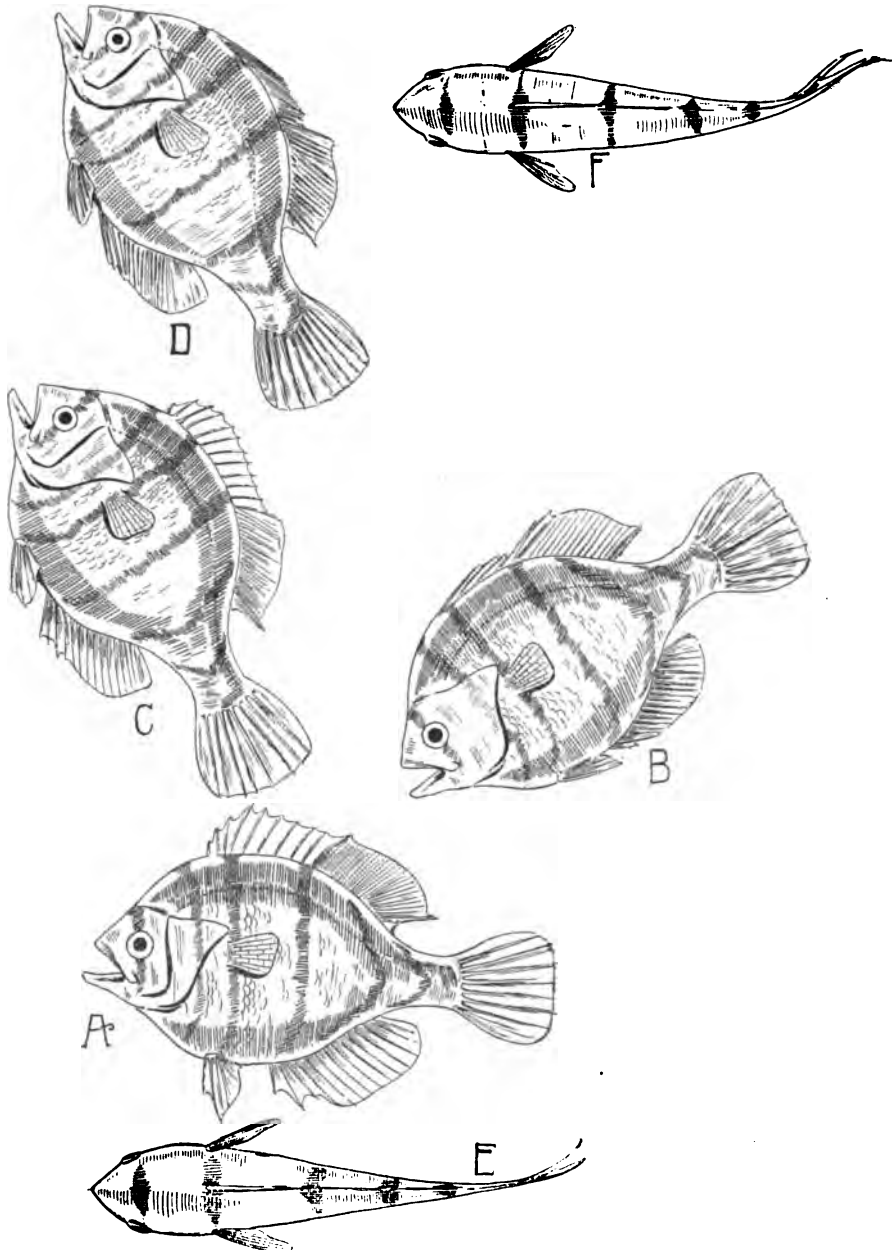
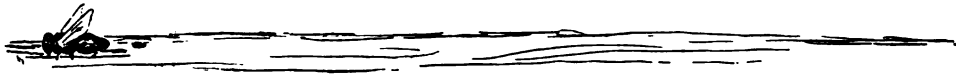
C shows the fish swimming obliquely upward. The eye still retains its normal direction, as shown by the vertical direction of the eye band.

D shows it swimming upward toward an insect, and the eye is turned toward the food, and is thus kept in the line of necessary vision, as well as in the direction it is swimming. The stripe across the eye coincides with the stripe across the head, as at A.

E represents a top view when the fish is swimming forward.

F shows the turning of the eyeballs before the turning of the body toward the left.

PROF. AUSTIN C. APGAR.



### The Mascalonge.

Under the head of "Fly Casting and Angling for Different Fishes—No. 9," by Chas. F. Johnson, I find in the *American Field* of March 19 the following:

"It has long been a contested point among the angling fraternity whether the mascalonge and pickerel are identical. The general comparison of these two fishes certainly favors the idea of the mascalonge being an overgrown pickerel. But I think the superior gamy qualities which the former unquestionably possesses, as well as the distinctly different manner in which he behaves when hooked, are points strongly in favor of allowing him to disclaim any true relationship to the pickerel family. Those anglers who have caught mascalonge and pickerel of the same weight must have been struck by the vast difference in the sport afforded by their respective captures. How contrary is the protracted dash and spirited play exhibited by a mascalonge, when hooked, to the short, sullen struggle with which a pickerel surrenders himself to the landing net."

It would be difficult, I think, for the veriest tyro to crowd into one short paragraph a greater number of absurdities than are contained in the foregoing. Whatever his erudition, however deep his reading, surely Mr. Johnson must have totally ignored each and every one of the numerous books, pamphlets and essays published within the last ten years, treating of the nomenclature and classification of fishes, else this astounding paragraph had never been penned.

"A contested point among the angling fraternity whether the mascalonge and *pickerel* (italics mine) are identical," indeed! I will charitably assume, however, that Mr. Johnson does not mean pickerel (*Esox reticulatus*), but pike (*Esox lucius*), which last-named fish does, in general form and appearance, somewhat resemble the mascalonge (*Esox nobilior*), though his spots, and the number and arrangement of his teeth, are so essentially dif-

ferent that no one, having once seen the two fishes, can mistake one for the other. The pickerel, on the contrary, bears no outward resemblance to the mascalonge, except in shape.

He is, as his name implies, not spotted, but reticulated, *i. e.*, having distinct lines or veins of color extending along his sides in transverse or oblong bars. He seldom exceeds four pounds in weight, while the pike and mascalonge will grow—no one knows how big.

Some persons, who go a-fishing occasionally, may deem the mascalonge "an overgrown pickerel" (pike), but for any writer to make the sweeping assertion, contained in Mr. Johnson's first sentence, as to "the angling fraternity," is simply preposterous.

In his third sentence Mr. J. takes the reader into his confidence, and naively observes: "But I think the superior gamy qualities \* \* \* \* are points strongly in favor of allowing him to disclaim any true relationship to the pickerel family." This is worse and worse. Why "gamy" instead of *game*? And does not Mr. Johnson know, ought he not to know, that the mascalonge, pike and pickerel are all true pike?

The "overgrown" theory he himself knocks effectually on the head in his fourth sentence. In the name of common sense, how could "those anglers who have caught mascalonge and pickerel of the *same weight*" (my italics again) think the former "an overgrown" specimen of the latter?

To what precise weight must a pike or pickerel attain before some one of "the angling fraternity" will call it a mascalonge? 'Twould be no more absurd to presume that a baboon is an overgrown marmoset, than to say that a mascalonge is "an overgrown pickerel." Either statement would be no less ridiculous than to call a huge wild boar an overgrown peccary!

Among the many hundreds of mascalonge taken by me in the course of my long angling

life, some have weighed only three pounds each. I have caught pike (Mr. Johnson's "pickerel") of twenty-two pounds, yet I never confounded one with the other, and when I once secured a mascalonge of forty-two pounds I did not for a moment suppose it to be an overgrown pike. How could I, how could any sane man do so who had once compared the two fishes?

It must be rather discouraging to those publishers of sportsman's journals—such as *THE AMERICAN ANGLER*, for instance—who have labored so long and so earnestly in instructing the public how to distinguish between the various members of the pike family, to find now, in this year of Grace, 1892, a writer on angling subjects so hopelessly mixed as Mr. Johnson appears to be.

W. THOMSON.

*East Saginaw, Mich.*

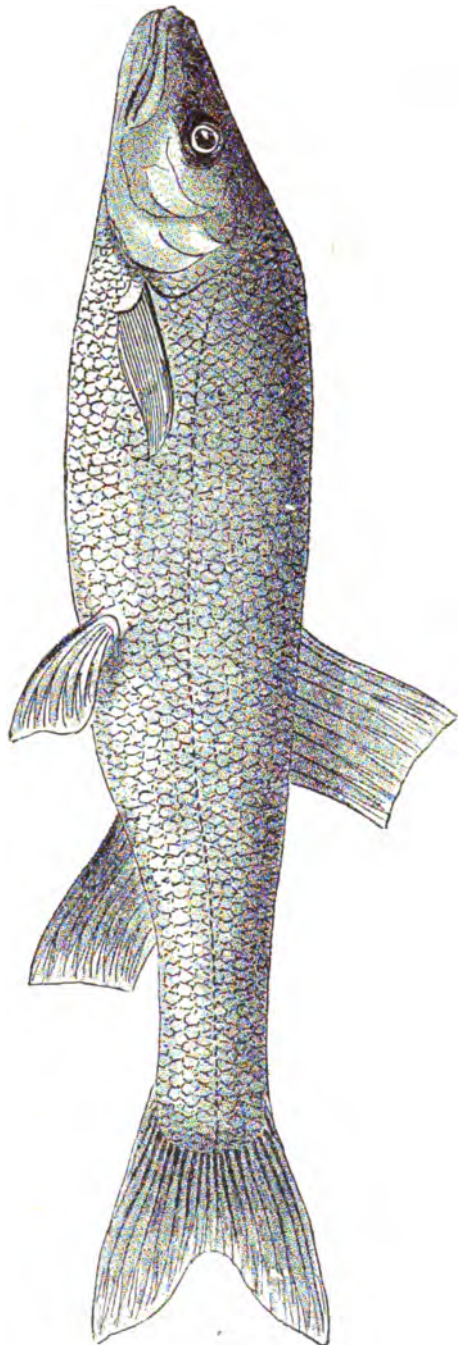
#### The "Sacramento Pike."

Our correspondent, "E. B. V.," asks us to tell him to what species the squaw-fish belongs. It is of the carp family of fishes, and, from its similarity in build, is called "pike" along the Sacramento River and tributaries. It is the largest of the carp species, growing, it is said, to the length of six feet in the Lower Colorado River. Its flesh is coarse and not esteemed as food. The scientific name of this fish is *Ptychochilus oregonensis*, and the accompanying illustration is an excellent portrait, drawn by the artist of *THE ANGLER* from life on the spot where the fish was captured—in Clark's Fork of the Columbia, near Heron, Mont.—ED.

#### The World's Columbian Exposition.

Send fifty cents to Bond & Co., 576 Rookery, Chicago, and you will receive, post paid, a 400-page advance guide to the Exposition, with elegant engravings of the grounds and buildings, portraits of its leading spirits, and a map of the city of Chicago; all of the rules governing the Exposition and exhibitors, and all information which can be given out in advance of its opening. Also, other engravings and printed information will be sent you as published. It will be a very valuable book, and every person should secure a copy.

THE SACRAMENTO PIKE.





## That 205-lb. Tarpon.

I have just read the article in your issue of March, 1892, entitled "The Tarpon Record," the paper being addressed to this city to Mrs. Geo. T. Stagg, who is now in California. Being connected in business with Capt. Geo. T. Stagg, the husband of Mrs. Stagg, and, moreover, having from boyhood loved and practiced the "gentle art" of Izaak Walton, and latterly given it play as a member of the "Kingfisher Club" in its northern camps and tramps, this leads me to say something in behalf of authentic fish records, and in verification of the catch of Mrs. Stagg.

I saw Mrs. Stagg shortly after the reception by her of the copies of THE ANGLER containing the communication of Mr. Stonebraker, followed by editorial comments. Mrs. S. is a lady of high sense of honor, tinged with that delicate touch of resentment that usually follows doubts of personal action, and conceived, we think naturally, that the remarks of Mr. Stonebraker were in the nature of caustic sarcasm, based on the supposed impossible feat of a lady doing what Mr. S. had either been unable to do or had not done. The editorial comments, she further conceived, gave the burden of endorsement to Mr. Stonebraker's thesis of ridicule, investing the circumstances of his catch of two tarpon as sufficiently strong to cloud the record of Mrs. Stagg, who had caught twenty in one season. And that when Mrs. Stagg's record had been vouched for by the editor of the Fort Myers (Fla.) paper, published on the spot, and by correspondents writing from there to Northern newspapers. Nay, more, when the 205-lb. tarpon was caught, the Fort Myers paper stated that crowds of people visited the wharf or dock to see and admire the biggest tarpon ever landed with hook and line, and the circumstances of the weighing were definitely stated. Don't these things count, Mr. Editor, as having something of credibility against absolute repudiation, until overwhelming *contra* evidence is produced?

Mrs. Stagg exhibited to me, on her return from Florida, her score, as well as that of her husband, who was then an invalid. My recollection is, not having it by me now, that it is correctly represented in your March issue. She is a lady of strong, symmetrical build, of cultivated tastes, a most expert fisherman, and you may accept, without further question, her record as against the record of Mr. Joseph R. Stonebraker, with his "two little tarpon," or as against the record of any one also, so far. No doubt Mr. Stonebraker felt on landing, with tumultuous effort and vast physical exhaustion, his two fish that that was the end—the *ultima thule*—of tarpon fishing, and no one need hope to do more, especially a woman, in the same time. Why, I have myself known big men in averdupois who couldn't land in an hour—in fact, couldn't land at all—a bass of four or five pounds until helped by sympathetic hands. Possibly Mr. S. may be one of that sort, and is to be congratulated that even in the time stated he got his little tarpon to gaff. Anglers usually overstate the time of landing big fish—the longer time the bigger fish, you know.

Mrs. Stagg had three of her tarpon mounted. One of 175½ lbs. is before me as I write; another, of 140½ lbs., is in possession of the Athletic Club, of this city; the third, of 205 lbs., has been sent to Chicago, at request of Commissioner Henshall, for exhibit at the World's Fair, in the fisheries display. Should Mr. Stonebraker visit that Fair, he may be enabled to see—and you, Mr. Editor—the biggest tarpon ever caught with hook and line, and can then doff your hat, "doubting Thomas" that you are, to the prowess of even a lady angler. Shame on you great, big, male fishermen, that can't even give a lady, who dares to contest weight and skill with you, even the benefit of a doubt till the case is closed. I've a notion to have a called meeting of the "Kingfishers," and have adopted a resolution protesting against such uncourte-

ous, precipitate and partial treatment as not of the craft. However, as you are an editor, and can "talk back at us" too often, guess we will leave that go. As an old editor myself in the years ago, have had experience in the "talking back business," and he is wise that lets fire alone.

SAMUEL R. SMITH.

*Frankfort, Ky.*

[Our correspondent utterly misconstrues the object and animus of Mr. Stonebraker's letter and our editorial comments. Our desire was simply to put the tarpon record straight, and as Mrs. Stagg was not heard from in the matter, it was not a discourtesy to her for us to question newspaper reports as to the weight of the big tarpon. At much trouble and some expense incurred previous to the receipt of Mr. Smith's communication, we verified the weight of this fish, and we now place the 205-lb. tarpon at the top of the record.—EDITOR.]

#### The Harris Fly.

Recently, in looking over patterns of flies that have done capital service, the above-named fly attracted my attention as worthy of notice; it is not new or different from a pattern given me some time back, called "the Harris fly," with perhaps some little variation in dressing, but not enough to warrant a change of name. There is no description of it by writers on the fly subject that I know of, which prompts me to tie and present you with duplicate patterns.

The "Harris fly" dates back somewhere about the time of your interesting experiment with that wary old resident of the pool that could not be tempted to respond to every kind of natural bait, but was finally captured through the fatal fascination of the artificial fly.

The bushy hackle, tied palmer fashion, used to be a great favorite with you about that time, but of late years the winged fly has taken the lead. However, I do not notice this fly through any desire of adding to the

already long and confused list of fancy named flies. It is evident beyond question that the majority of American fly fishers favor the principle of condensation. I notice this fly simply from the fact of its having the qualities of a bass and trout fly combined; if dressed on hooks to suit as circumstances may require, and according to the pattern and description I send, it will kill anywhere.

The figure below is intended to represent it dressed on a No. 3 or 4 hook, as follows:

Tipped with gold or silver tinsel and gold color floss silk. Tail, a few fibres of gold pheasant neck feather, ibis, wood-duck, mallard and teal. Body, golden yellow mohair taper and full, ribbed with gold or silver



tinsel. Hackle, a silver gray, running from tail to head, the mohair to be picked out between the fibres of the hackle. Wings, a mixture of gray mallard, ibis and brown turkey, with a few sprigs of golden pheasant neck feather, yellow and wood-duck, over these two strips of brown mallard. Head, black, with a sprig from the blue and yellow macaw feather tied in each side of the wing to represent feelers or horns. This may appear to some like a stretch of the imagination. Anyhow, the salmon fly has to have the sprig of macaw tied in each side of its head, and the bass and trout don't seem to have the least objection to it.

PAT WARDEN.

*Philadelphia, Pa.*

Will Mr. J. Luther and Col. Nicholas Pike kindly send their street addresses to this office?

### Deer Lick Camp.

This camp is situated on the Dead Diamond River, in Maine, and is some twelve miles from the nearest settlement. The "lick" that is within a few rods of the camp gives its name, though formerly it was known as Hell Gate Camp. It is at the foot of what is known as Hell Gate Falls. The Dead Diamond furnishes superior trout fishing in every respect. The fish taken weigh as high as four pounds. Some twenty or more years ago this region was lumbered, and many dams were built. Under these dams are the finest brook trout taken anywhere. At any time a catch of fine fish is insured. A sportsman took three from one hole, one evening last summer, that weighed eleven and three-quarter pounds. Two-pounders are often taken. The streams here have not been fished much as yet, and the country gives plenty of opportunity for finding new "holes."

### A Fine Salmon Water.

Mr. D. G. Smith of Chatham, Mirimachi, New Brunswick, who is Secretary of the New Brunswick Crown Land Commission, editor of the *Mirimachi Advance* and an ardent sportsman, presents, through the ANGLER, what seems to be an excellent opportunity for some of our wealthy seekers after Canadian salmon privileges, to acquire a river worth possessing. We happen to know that his sketch of the river in this number of the ANGLER was not written with any knowledge on his part that it would ever be for sale, especially through him, but the information contained in it is none the less valuable and timely.

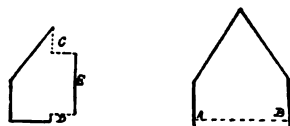
### A 3-4 lb. Fly-Proof Sleeping Tent.

One July night, ten years ago, I camped on a partibog meadow, with a background of alders, from which rose a hillside covered with maple, birch, spruce and fir. I had only a lean-to, and the flies were so attentive that they drove me to a bar in the river, where I had a little relief from them, but not enough to enable me to sleep. I am one of the fortu-

nates who don't care how plentiful flies are when they are fishing, but whose rest is always spoiled by them. It is therefore natural that my thoughts were of flies and how to evade them, so, before morning, I hit upon the idea. As many of your readers may be desirous of providing themselves with a device that is very light, cheap, and an absolute protection from flies during times of rest while on fishing trips, I will describe my "Miramichi fly-proof sleeping tent." They are all welcome to the idea, but I don't want the device called by any other name.

The tent is made of good quality unbleached cotton, six feet wide. Cut off four yards and sew the two ends together. You now have what will form the bottom, walls and roof of a small house tent, thus:

Next cut out a piece that will make an end, which I will call the rear end. The width of the tent from A to B is thirty inches. The front or entrance end is cut from cotton about thirty inches wide, and in two pieces, of this shape:



THE END PIECE.

Sew together where the dots are, leaving the edges at E open. Then sew the ends in the tent. You now have a complete fly-proof tent, six feet long, thirty inches wide and about forty-eight inches high. The entrance is through the slot, by the slack cloth, E, which is rolled upon itself and secured by hooks and eyes properly placed—say nine inches apart—being fastened on the outside when the tent is unoccupied, and on the inside when it has a tenant. The bottom forms a nice sheet, on fir tips or other bedding, which can be placed after the tent is put up, and is, of course, on the ground.

Before sewing the ends in I generally have a row of stitching run along an inch below the apex or ridge, and this forms a sheath

through which I run a ridge line of about a quarter inch diameter. The ridge and line being stretched together, I fasten them securely, leaving four feet of spare line at each end for attaching to trees, or to a stick which



forms a ridge pole, resting on crossed sticks at each end. It is well to have a tie-up line of tape midway between the ends to keep the ridge up to the ridge pole.

This tent weighs three pounds four ounces, so it is almost a pocket affair. I have used it exclusively for sleeping in on my fishing trips



for ten years. There are stray flies in our fishing club houses, and even in farmhouses, so I use it when stopping at these, as well as in the woods. I have always found the ventilation perfect, and a rubber sheet and pair of gray blankets sufficient for the coldest of our fishing season nights. The roof sheds

rain so well that I have never needed other protection, but, in an exposed position and heavy rain fall, an extra cloth of cotton, or a rubber sheet, could, if necessary, be placed over the ridge and down the roof. I append rough sketches.

D. E. SMITH.

Chatham, N. B., April 15.

#### Deep Sea Fishes.

Fish do not seem to exist below four hundred fathoms (2,400 feet), with the exception of the shark.

We find the above erroneous statement going the rounds of the press. True fishes have been found at a depth of 2,750 fathoms (16,500 feet). A specimen of the *muræna* (an eel-like fish) has been taken at a depth of 15,000 feet. One of the codfish family (*Gadus melanonus*) has been dredged in the Antarctic Ocean from a depth of nearly 12,000 feet, and the well-known halibut has been caught 800 feet below the surface of the ocean. Sharks seldom, if ever, descend 500 fathoms.

#### An Annual Fishing Contest.

The second annual fishing contest by the Canandaigua, N. Y., Anglers' Association will take place Thursday, June 16, Mr. Charles C. Wilcox and Dr. O. J. Hallenbeck acting as captains of the opposing teams. The rules governing the contest are as follows:

1. Only members of the C. A. A. will be permitted to enter the contest.
2. All fish must be caught between 12 o'clock midnight and 10 o'clock P. M. June 16, 1892.
3. Fishing is restricted to Canandaigua Lake, its inlet and outlets.
4. Each and every fish must be caught with hook and line in hand, the lines handled and the fish landed by the contestants only.
5. No set lines, nets or other devices than those mentioned are admissible.
6. All fish presented later than 10 o'clock P. M. at the Town House in the village of Canandaigua, on said date, shall be barred,

and cannot be counted under any circumstances.

7. A supper will be provided by the committee for the contestants only, at one of the hotels in Canandaigua, which supper must be paid for by the side that has been defeated.

8. No person shall be allowed more than one prize.

9. The kind and length of fish and the amount each scores shall be as follows:

KINDS OF FISH.	LENGTH.	SCORE.
California mountain trout.....	8 inches—40 points.	
German or brown trout.....	8 " 40 "	
Whitefish.....	12 " 30 "	
Lake trout.....	12 " 25 "	
Black bass.....	8 " 25 "	
Pike.....	12 " 20 "	
Chub.....	8 " 8 "	
Pickarel.....	12 " 8 "	
Eel.....	18 " 6 "	
Bullhead.....	8 " 5 "	
Perch.....	6 " 5 "	
Rock bass.....	6 " 5 "	
Sunfish.....	6 " 4 "	
Suckers.....	8 " 3 "	
Carp.....	8 " 3 "	

In all varieties each pound counts one. Prizes for best scores will be given.

Committee: { F. M. DURAND,  
F. D. CRANDALL,  
WM. H. FOX.

The Canandaigua Anglers' Association have received this spring in the shipments from the Caledonia Hatchery, for distribution in Canandaigua Lake, 478,000 California, German and Lake trout fry; the last 273,000 were delivered on March 17 by the State Fish Commission, care "Adirondack," free of charge, it being the first free shipment made in the State.

The above association now contemplate renting and furnishing a suite of rooms for club purposes.

The game constable elected at the recent election is the owner of a fine steam yacht, which he proposes to use in the service of protecting the lake against illegal fishing.

The fishing in Canandaigua Lake last season was the best for many years past, and the coming season promises even better.

### Compressed Pea Meal.

Can you inform me where, if possible, I can procure pea meal compressed into the shape of cubes or lozenges, one of which, when boiled with a quart of water, furnishes a bowl of palatable soup? I have heard that the German soldiers are supplied with rations in this manner, and am of the opinion that it would be a great boon to anglers and hunters camping out if different articles were put up in this manner.

JACK PINE.

Can any of our readers answer the above query?

### Salmon Pools to Let.

Three excellent pools on the Restigouche, about seven miles above the Restigouche Club House. These are the finest pools on the river for early fishing. One of them, however, carries fish the entire season. The early fishing commences about June 1. Apply to office of AMERICAN ANGLER, 110 Duane Street, New York, or to John Mowat, Campbellton, N. B., Canada.

### Fishing Clubs and Waters.

A few vacancies exist in a near-by fishing and shooting club, leasing 1,500 acres of quail, ruffed grouse, woodcock and rabbit grounds, seven miles of excellent trout streams and twelve acres of trout ponds. Good shooting and fishing within one and a half hours of New York City. Leaving Chambers Street Ferry at 3.40 P. M., the club house is reached, dinner served and two hours of trout fishing obtained before dark. Leaving club house station at 7.15 o'clock, Chambers Street is reached next morning at 8.45. Address Wm. C. Harris, chairman executive committee, care of AMERICAN ANGLER, 110 Duane Street, New York City.

A DESIRABLE SHOOTING AND FISHING PROPERTY.—Hunt's Park is on Hunt's Lake, about three miles from Tranquility, on the L. & H. R. R. The lake is stocked with black bass, and has pickerel, perch, snappers, frogs, etc. It is about a mile long, and water about twenty-five feet deep. In the park is a new summer house, with two stories and sixty feet of porch. A well of good water near door. Ice house full of ice on premises. Barn and necessary out-buildings. The park has about a dozen acres heavily timbered with hard woods. The roads in the vicinity are alate, and afford the finest drives. In the park are squirrels, foxes, woodchucks, rabbits, pheasants, quail and thousands of native song birds. It is an ideal place for rest and recreation. The house is furnished throughout. The best way to reach it is to stop at Andover, N. J., on Sussex R. R., and drive across the country. Possession can be given at any time. Price \$3,500. Address owner, care AMERICAN ANGLER, 110 Duane Street, New York.

The Fall River Line resumes Sunday trips for the year on Sunday, April 3. The steamers Pilgrim and Plymouth are now in commission. A trip by the Fall River Line is an agreeable one at any and all seasons. The constantly increasing patronage accorded this great route throughout the entire year, bears satisfying testimony to the agreeable service and unsurpassed facilities which it places at the disposal of travellers at all times.

**A SUPERIOR BLACK BASS CLUB PROPERTY.**—The cottage and grounds of the Ivanhoe Fishing Club are for sale. This property is situated at the mouth of the river Styx, on the west side of Lake Hopatcong, N. J., directly opposite Hotel Breslin and cottage and grounds of the actress Lotta. Lake Hopatcong is a large body of water, one hour's ride from New York, and can be reached by the Delaware, Lackawanna and Western Railroad or the Central Railroad of New Jersey. It is nine miles long, three miles wide, and has ninety miles of coast line, and is about 1,200 feet above sea level. It forms the boundary line between the counties of Morris and Sussex. The water is from forty-five to seventy feet deep, and steamers and naphtha launches, together with a large number of sailboats, canoes, etc., are running in every direction during the summer months. It contains many fish, and is noted as the finest place for black bass fishing in the Eastern States, if not in the United States. Pickerel, perch and smaller fish are abundant, and no fisherman need go away empty-handed. Small steamers and sailing crafts can enter the canal at Jersey City and run to the lake without leaving the water. The water is pure and clear, and will be the basis of Newark's water supply by the Lehigh Valley Railroad Company. The scenery about the lake is grand and picturesque, and by some is believed to surpass Lake George. The property of the Ivanhoe Fishing Club consists of several acres, heavily timbered with a heavy growth of hard wood, forming an abundance of shade in any part. Upon this property is a two-story and attic club house, with accommodations for about twenty persons, finished inside with Georgia pine, and furnished throughout. There is about a quarter of a mile of water front, and a new and splendid wharf, at which steamers land at all seasons of the year. To the east of the wharf is a gravelly bottom bay, where steamers and sailing craft together with canoes and rowboats, can ride at anchor in safety during the most violent storms. This bay is an elegant place for bathing, the water being from one to ten feet deep. This property is offered to an organization as a whole or in part, or, if it is not desirable to the members as an organization, perhaps some individual member or friend might like to have it to take his family during the summer months. A gentleman occupied the cottage and grounds last fall one month; he came up after business hours from New York, spent the night with his family, and returned to the city in the morning again in time for business. If you are interested and would like to know the terms, conditions, etc., of sale, address Ivanhoe, care of AMERICAN ANGLER, 110 Duane Street, New York.

#### A Trout Property for Sale.

An excellent farm of about 125 acres, through which runs a well-stocked and natural trout stream nearly a mile in length. This property will be sold on reasonable terms and to an accredited purchaser a membership in a shooting and fishing club will be given with the deed. The club is composed of prominent gentlemen of New York City, who own 1,500 acres of shooting ground, seven miles of natural trout waters and about twelve acres of spring ponds, all of which have been thoroughly stocked annually for three years. The property is within thirty miles of New York and has excellent railroad facilities. Address "Farmer," care of THE AMERICAN ANGLER, 108-110 Duane Street, New York.

#### A Big Canadian River for Sale.

CHATHAM, MIRAMICHI, N. B., April 25, 1892.

W. C. Harris, Esq., New York:

DEAR SIR:—When I complied with your request to prepare a sketch of the Northwest Miramichi for THE ANGLER, I had not any idea that the whole of that magnificent salmon river and all its tributaries, save the Little Southwest and Sevogle, would ever be in the market, but such is the case. Hon. M. Adams, the member of the House of Commons for this county, who has been very ill for nearly a year, is advised by his physicians that he must hereafter avoid all exposure such as that involved in salmon fishing, and he has placed Camp Adams, with its splendid range of salmon pools, in my hands for sale; and I have also secured from Lt.-Col. Call, our consular agent of the United States, his range of water held by crown grant title in perpetuity—as the Camp Adams property also is—and, in addition to these, the lease from the Crown for ten years from the present month, of the exclusive right of fishing in the whole Northwest Miramichi, from its sources to a point six miles above tide water, including all its branches save the two above named, which two enter the river below the portion of it embraced in my holding.

No similar opportunity for the organization of a fishing club that will out-rival the famous Restigouche in the value and extent of its property, can possibly be presented in Canadian waters. The main river included in this offer measures over sixty miles, and abounds with salmon pools. Four miles of these were selected years ago by Mr. Adams and Col. Call and bought from the Crown, being the best salmon pools on the river. Those who secure them, together with the ten years' lease of exclusive fishing rights over the ungranted Crown lands, will have a salmon and trout fishing preserve which must always be the most valuable in New Brunswick. Besides the strong sixty miles of salmon water of the main river, there are embraced in my offer more than one hundred miles of tributaries, including Trout Brook, Portage River, Tomogrope, Little River, Mountain Brook, Winnigat, Flaherty, Clearstream and Tarpot brooks, etc., with their lakes, all of which yield trout of the largest size in abundance.

More than forty miles of the main river, and all the branches, are above the settlements, which are receding instead of advancing, so that the whole region is a fisherman's sanctuary, while no noted salmon river of Eastern Canada is so easily and inexpensively guarded, for the reason that there is no approach to it save over the Camp Adams road; but there are other roads made by lumbermen which branch from this, and are convenient as means of reaching many of the pools.

The Dominion Government has maintained a salmon hatchery on this river for more than twenty years—a substantial guarantee of its productiveness, for salmon-fry are supplied from this establishment to its own waters, as well as those of less favored rivers in the Northwest, while the yearly deposits of fry from the Restigouche hatchery (which will, this season, be 200,000) is rapidly increasing the average weight of its salmon stock, as shown by Camp Adams and other records.

Mr. Adams, some time since, refused \$17,000 for his well-known property, with its four miles of fishing water. A little more than double that sum will now buy the whole of the Camp Adams property, the Call property and the ten years' Government lease, conveying the exclusive control of the whole river—more than 150 miles of the best salmon and trout water in Canada—practically for all time, for even when the ten years' lease of the exclusive Crown Land fishing privileges expires, that portion of the river will, in all probability, be again secured at the present moderate rental by those owning the granted pools.

I shall be glad to treat with intending purchasers, or assist in organizing a first-class club. I am prepared to transfer the whole of the properties and privileges in good time for the coming season's fishing, and will sell the whole, or three-quarters, as may be desired. My address is Chatham, N. B.

Respectfully yours,  
D. G. SMITH.

# "Open" or Legal Season for Fishing--1892.

THE FISH NAMED BELOW CAN BE CAUGHT LAWFULLY ONLY  
WITH HOOK AND LINE.

[We give below a correct summary of the fish laws governing the open seasons. In States omitted from the list no laws exist respecting the fishes named. There are in many States county and township laws that regulate the fishing therein, and to print them in full would occupy pages. We will, however, upon the receipt of a postal card, forward the address of a resident angler, who will give information as to any particular section.]

## SALMON--ATLANTIC AND PACIFIC.

California	October 1 to August 31.
Maine	April 1 to September 15.
Massachusetts	May 1 to August 1.
New Brunswick	February 1 to August 1.
Nova Scotia	February 1 to August 15.
Ohio	March 15 to September 1.
Pennsylvania	April 15 to July 15.
Quebec	February 1 to August 15.
Rhode Island	April 15 to July 15.

## BROOK TROUT--*Salvelinus fontinalis*.

California	April 1 to November 1.
Connecticut	April 1 to July 1.
Iowa	April 1 to November 1.
Maine	May 1 to October 1.
Manitoba	January 1 to October 1.
Maryland	April 1 to August 15.
Massachusetts	April 1 to September 1.
Michigan	May 1 to September 1.
Minnesota	April 1 to October 1.
Nevada	April 1 to October 1.
New Brunswick	May 1 to September 15.
New Hampshire	April 15 to September 15.
New Jersey	April 1 to July 15.
New York	April 15 to September 1.
North Carolina	January 1 to October 15.
Nova Scotia	April 1 to October 1.
Ohio	March 15 to September 1.
Ontario, Can.	May 1 to September 15.
Pennsylvania	April 15 to July 15.
In Pike County	May 1 to August 1.
Prince Edward's Island	December 1 to October 1.
Quebec	May 1 to September 15.
Rhode Island	March 1 to August 15.
Utah Territory	June 15 to February 15.
Vermont	May 1 to September 1.
West Virginia	January 1 to September 1.
Virginia	April 1 to September 15.
Wisconsin	April 15 to September 1.

## SALMON TROUT, TIGER, LONGE OR LAKE TROUT--*Salvelinus namaycush*.

California	April 1 to November 1.
Iowa	May 15 to November 1.
Maine	May 1 to October 1.
Massachusetts	April 1 to September 1.
Nevada	April 1 to October 1.
New Hampshire	January 1 to October 1.
New Jersey	March 1 to October 1.
New York	May 1 to October 1.
Ontario	December 1 to November 1.
Pennsylvania	January 1 to October 1.

Quebec	December 1 to October 15.
Vermont	May 1 to September 1.
Wisconsin	January 15 to October 1.
New Brunswick	May 1 to September 15.
Nova Scotia	April 1 to October 1.

## LAND-LOCKED SALMON--*Salmo salar*.

Maine	May 1 to October 1.
Massachusetts	April 1 to September 1.
Michigan	May 1 to September 1.
Nevada	April 1 to October 1.
New Hampshire	April 15 to September 30.
New York	same as those for salmon or lake trout.
Nova Scotia	April 1 to October 1.
Ohio	March 15 to September 1.
Quebec	December 1 to September 15.
Vermont	May 1 to September 1.
West Virginia	January 1 to September 1.
New Brunswick	May 1 to September 15.

## GRAYLING--*Thymallus signifer*.

Michigan	May 1 to September 1.
New Hampshire	June 1 to April 1.

## CALIFORNIA OR RAINBOW TROUT--*Salmo irideus*.

Michigan	May 1 to September 1.
New York	April 1 to September 1.
Wisconsin	April 15 to September 1.

## BROWN OR GERMAN TROUT--*Salmo fario*.

New York..... same law as for brook trout, which see.

## BLACK BASS--*Micropterus dolomieu*, *M. salmoides*.

Connecticut	June 11 to May 1.
Iowa	May 15 to November 1.
Maine	July 1 to April 1.
Massachusetts	July 1 to December 1.
New Hampshire	June 15 to May 1.
New Jersey	May 30 to December 1.
New York	May 30 to January 1.
Ontario, Can.	June 15 to April 15.
Pennsylvania	May 30 to January 1.
Quebec, Can.	June 15 to April 15.
Rhode Island	July 15 to March 1.
Vermont	June 1 to February 1.
Virginia	July 1 to May 15.
Wisconsin	May 1 to February 1.

## MUSCALONGE--*Lucius masquinongy*.

New Hampshire	June 1 to April 1.
New York	May 30 to January 1.
Ontario	June 15 to April 15.
Quebec	June 15 to April 15.
Wisconsin	May 1 to February 1.

## PIKE AND PICKEREL--*Lucius lucius* and *L. reticulatus*.

Iowa	May 15 to November 1.
Manitoba	May 15 to April 15.
New Hampshire	June 1 to April 1.
New York	Cannot be caught in Lake George except from July 1 to February 15. No other restrictive State laws.
Ontario, Can.	May 15 to April 15.
Pennsylvania	June 1 to February 1.
In Pike County	February 15 to June 1.
Quebec	May 15 to April 15.
Western Virginia	June 14 to April 1.

The pike is called "Jack" or "white salmon" in Western Virginia.

## PIKE-PERCH--WALL-EYED PIKE--*Stizostedion vitreum*.

Iowa	May 15 to November 1.
Manitoba	May 15 to April 15.
New Hampshire	July 1 to May 1.
New York	May 30 to March 1.
Ontario, Can.	May 15 to April 15.
Pennsylvania	May 30 to January 1.
Quebec, Can.	May 15 to April 15.
Vermont	June 1 to February 1.
Wisconsin	May 1 to March 1.

## WHITE PERCH--*Roccus americanus*.

Maine	July 1 to April 1.
New Hampshire	July 1 to May 1.

## BOOKS IN SEASON.

**The Angler's Guide to the Fishing Waters of the United States and Canada.** This book is invaluable to the angler and tourist. It tells how eight thousand fishing waters are reached, the species of fish therein, hotel accommodations and cost, charges of guides, boats, etc., baits used and best months for fishing. Handsomely bound in cloth, \$1.00.

**The Practical Angler.** How, when and where to fish. By Kit Clarke. Giving a description of American game fish caught with hook and line, methods of capture, their habits and haunts, and all requisite information whereby the novice can acquire the art and enjoy the delightful recreation of fishing. Paper, 50c.; cloth, \$1.00

**The Salmon Fisher.** By Charles Hallock. Contents: Distribution of the salmon; life history of the salmon; technology of salmon fishing; salmon fishing in abstract; luxury of salmon waters; itinerary of the salmon rivers. A practical book in every way. Price, cloth, \$1.00.

**The American Salmon Fisherman.** By Henry P. Wells. This work is the fruit of the author's long experience and practical knowledge of the subject. The opening chapter tells how and where salmon fishing can be obtained, and contains a map and list of the salmon rivers in this country and in Canada. Illustrated, cloth, \$1.00.

**Fly Rods and Fly Tackle.** With suggestions as to their manufacture and use. By Henry P. Wells. This book is one of great value, and will take its place as a standard authority, and it cannot be commended too highly. Illustrated, cloth, \$2.50.

**Book of the Black Bass.** Comprising its complete scientific and life history, together with a practical treatise on angling and fly fishing, with a full account of tools, implements and tackle. By Dr. James A. Henshall. Illustrated, 12mo., cloth, \$3.00.

**The Fishes of the East Atlantic Coast that are Caught with Hook and Line,** including the fishes of the east coast of Florida. By Louis O. Van Doren and Samuel C. Clarke. This is a practical text book on the salt water fishes that are found on the Atlantic coast from Northern Maine to the Gulf of Mexico. No other work now in print covers this field, and none has been published on this subject for the last quarter of a century. Messrs. Van Doren & Clarke give the scientific and popular descriptions, habits, habitats, when, where and how to catch them, of forty-two fishes that are caught with hook and line along the Eastern coast of America. The illustrations are numerous and are photo-likenesses of the fish represented. Cloth, price \$1.50.

*Any of the above books will be sent, post-paid, on receipt of price.*

**Orvis' Fishing with the Fly.** By Charles F. Orvis and A. Nelson Cheney. With fifteen full page colored illustrations of salmon, bass and trout flies. Cloth, crown, 8vo., gilt top, \$2.50.

**Fishing in American Waters.** By Genio C. Scott. No author in America has given us so full and accurate a description of the salt water fishes of the Atlantic coast. The chapter on the striped bass is alone worth the price of the book. Fully illustrated, \$2.50.

**Norris' American Angler's Book.** Embracing the natural history of sporting fish and the art of taking them, with instructions in fly fishing, fly making and rod making, and directions for fish breeding. With a supplement containing a description of salmon rivers, inland trout fishing, etc. With eighty engravings. By Thaddeus Norris. Cloth, extra bev. boards, gilt top, 8vo., \$5.50.

**Artificial Flies and How to Make Them.** By Malcolm A. Shipley. This is one of the most practical works on the subject of fly making that has ever been issued in either the United States of America or Europe. Each process, from that of tying the hackles on a "spider" or palmer fly to the elaborate and artistic work on wing flies, is plainly illustrated, so that the merest tyro can become an expert. Cloth, \$1.00.

**Fish Hatching and Fish Catching.** The authors' names are sufficient to indicate the character, scope and value of this new work. By R. B. Roosevelt and Seth Green. Cloth, 12mo., \$1.50.

**The Game Fishes of the West.** This is a practical angling book, and contains a paper on the grayling, mascalonge, pike, pike-perch, strawberry bass (crappie), rock bass (red-eye or goggle-eye), yellow perch, cisco, mascalonge of the Mississippi system, white bass (fresh water striped bass), railroad literature, grayling waters of Michigan, angling waters of the West and Northwest, fishes of the Pacific coast and some Alaskan fishes. These essays have been written by the most prominent angling writers in America, and the edition is essentially a text book for the game fishes of the West. Fully illustrated. Paper, 15c.

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For information as to hotels apply to hotel managers. For folders and guide books, to Thos. Cook & Son, 261 Broadway, New York; to Raymond Whitcomb, 296 Washington St., Boston, and to ticket agents of all principal cities.

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In the Hackensack above River Edge there is at times excellent fishing for pike.

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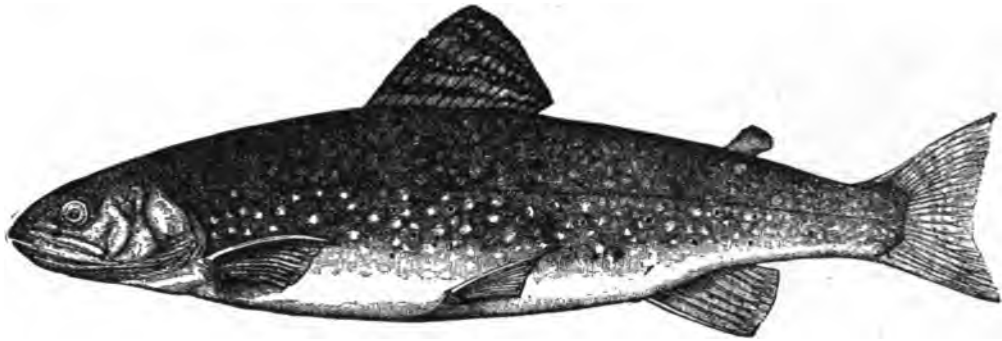
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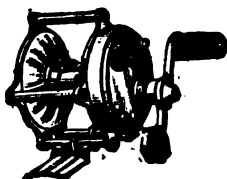
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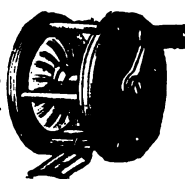


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Fig. 1.



Fig. 2.



Fig. 3.

rule from cutting into the enamel of the Bamboo at point of contact, at both male and female joints. The German Silver Ferrule also being made on a true taper (see cut) enables the reinforcement or Zylonite Ferrule to be stretched over the Bamboo without cutting away any of the enamel, which has to be done in the use of any Ferrule, except where it is reinforced as in the KOSMIC.

FIGURE 1.—Shows Celluloid reinforcement for both male and female Ferrule.

FIGURE 2.—Shows male Ferrule, with reinforcement of Celluloid underneath German Silver Ferrule.

FIGURE 3.—Shows sectional view of the waterproof joint from shoulder up.

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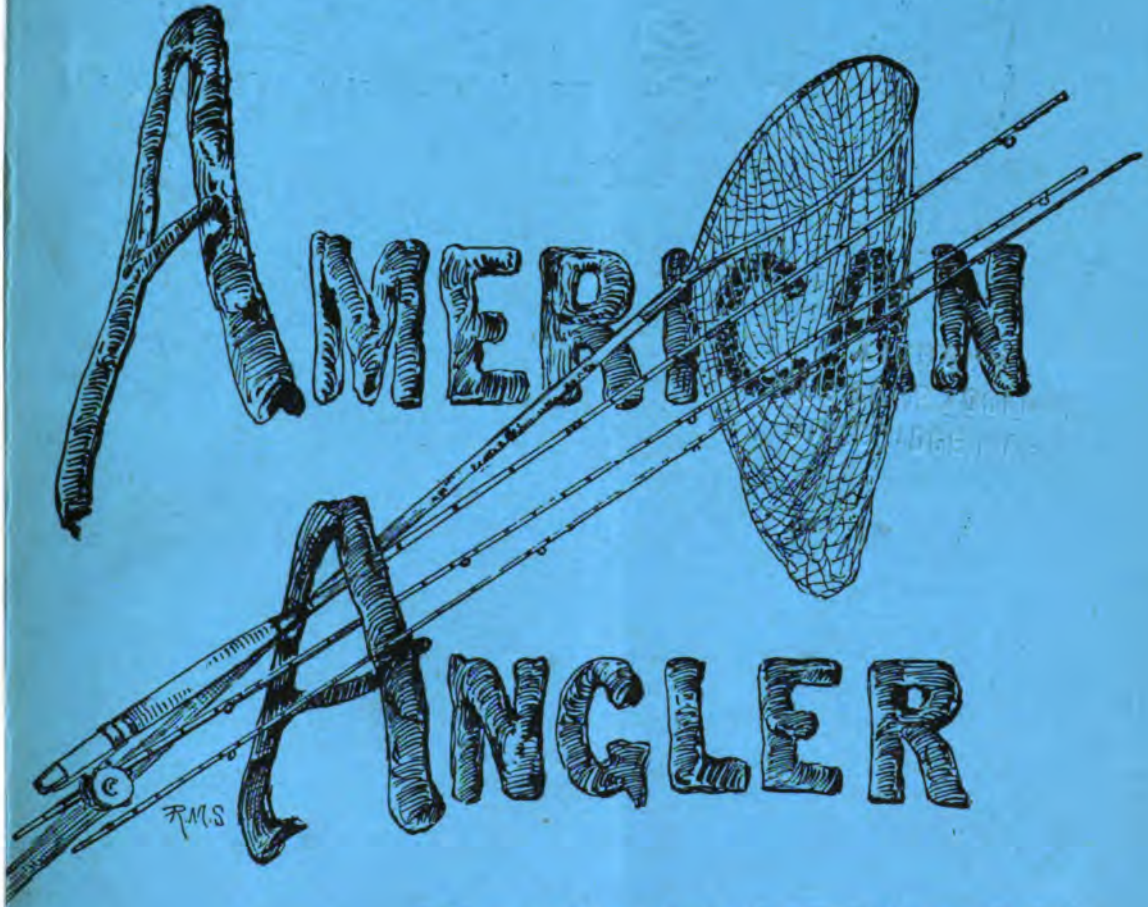
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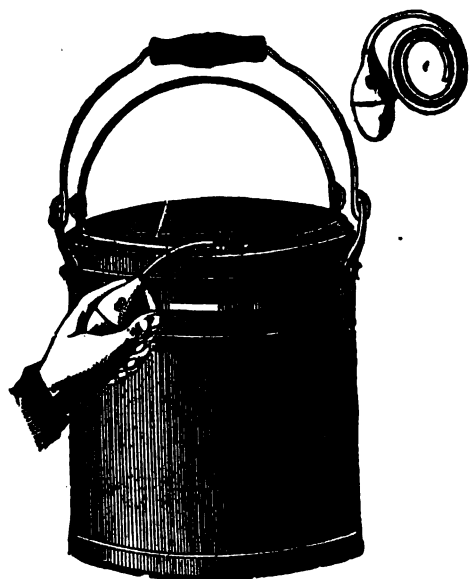
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PRESS OF F. M. EDWARDS & CO.,  
108 Duane Street.

# THE AMERICAN ANGLER.

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NO. 12

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## BY SOUND AND RIVER.

By CHARLES HALLOCK.

I am wondering if the denizens of New York, heated or otherwise, fully appreciate in this midsummer season the scenic beauty of the border land of Long Island Sound, which stretches along the route of the New York, New Haven and Hartford Railway? To me it is especially charming, by contrast with various other localities which I have recently traversed.

Within the month I have compassed nineteen hundred miles of lovely country lying between the capital of Manitoba and Gotham. I have viewed the sweeping grain fields of the great Red River Valley and the park region of Minnesota, resplendent with myriads of lakes. I have viewed the intervalles and dalles of Wisconsin, the grove-dotted prairies of Illinois, the dimpled hills of Ohio and Indiana, the mountain ridges of Northern Pennsylvania, and all that wealth of varied landscape which lies along the line of the Erie Railway through Central New York, famous the world over for its picturesque scenery; and I can truly say that the entire combination did not yield that measurable sense of superlative satisfaction which I derived from a recent brief journey from New York to Northampton. As a fact, the latter seemed an exquisite epitome of all that had foregone, with the added attraction of rare salt water features; and it was too short to be tiresome. Herein we find the *sum mum bonum* of terrestrial existence: to have all the choice spots of earth culled out for us, with liberty to discard the rest.

From Harlem to New Haven it is park

region all the way—seventy-six miles of natural beauty supplemented by art and adapted to every known fancy and desire of the cottager and suburban dweller! Pastoral scenes invite us at Williams Bridge, almost within the gates of the metropolis—cows standing in the still waters of the Bronx, willows bending over the margin, lawns spread everywhere. All along the route thenceforward villas crown the wooded heights; cottages nestle in the dells; crags peep out from forest embrasures, vistas open out to the Sound, revealing blue islands in the distance; fresh water ponds and wanton rivulets wind through the groves; yachts cluster in the estuaries; lawns, gardens and tennis courts fill up the intervals between the frequent boroughs and groups of factory stacks. Contentment sits at every door. All the woods are filled with song. Birds nest in all the branches. All the turmoil of the busy world is excluded. There are no strikes, or riots, or blights, or inundations—nothing to vex or disturb. How the shore dwellers of Long Island Sound are to be envied! Can their happy condition be duplicated elsewhere?

It is not often that I pass through New Haven. It is a busy manufacturing town of a hundred thousand people, and half a dozen railroads centre there. Once I dwelt there as a boy. Then it was a great place for study, with its college embowered in elms. A single railroad ran into the place from Hartford. The only business stir was on Long Wharf, where vessels arrived periodically from the West

Indies. The daily advent of the New York steamboat at Belle Dock was an event, and all the hackmen turned out. There was no railroad to New York. The capacious harbor stood wide open, and smacks sailed right in up to the Old Dyke. When the railroad track was laid, in 1846, a causeway was built across the head of the harbor, and vessels entered the basin through a draw. Now the inclosed area is all a solid fill, crossed with streets and built over with brick blocks, and the Union Depot stands on its seaward side. Beyond the draw, and across Long Wharf, was the basin of the old canal, which ran to Northampton. This is all filled up, too, and occupied with round-houses and machine shops, and trains of cars run up the canal bed where the boats used to ply. Just before it was abandoned, the basin was a great place for bathing and fishing in summer and ice yachting in winter. Boys were drowned where the ground is solid now.

Passengers from New York for Northampton nowadays leave the train at New Haven and change to this old canal division. The route is very picturesque. Within a brief eighty miles one has all the varied landscape of the Alleghenys and Central New York State—the great sandstone cliff of East Rock at the start, succeeded immediately by the Hamden Plains and a broad expanse of meadow land at Cheshire, which is threaded by winsome trout streams that are inexorably posted. Here and there, beside the railroad track, sections of the old canal are visible, still holding water, but converted into nurseries for flags, frogs and cat-tails. Full in view stands Mt. Carmel, a noble headland, flanked by ranges of hills much foliaged, and harboring hosts of woodcock and partridges. Next we enter the valley of the Farmington river, famous for its periodical overflows and incidental battues of muskrats drowned out from their dwellings. Four miles onward rises the broad back of Talcott Mountain, capped by an old observatory, which has done sentinel duty for half a century; and after that comes Simsbury, with its ancient copper mines and ante-Revolutionary history, and Congamond Lake, and the busy town of Westfield, where all the whips of cre-

ation are made, and the expansive valley of the Westfield river, overgrown with tobacco plants and enclosed by an amphitheatre of hills, with the blue hummocks of Mounts Holyoke, Nonotuck and Tom filling up the extreme limit of the perspective.

This would be a lightning summary as caught by a kamaret, but although the scenery is intrinsically much beyond the average landscape in variety and expression, one has to study its phases with the recurring seasons to learn its exceptional character. One can marvel at its vivid garniture of summer, but to view the landscape in its autumnal glory is to be filled with ecstasy. Beyond Northampton, among the Hampshire and Berkshire Hills, the aspects of the New England "Indian Summer" are even more superb; nay, they are incomparable. I dare say that people who sojourn here in the summer only can have no adequate conception of them, though I am glad to say that of late years it has become the fad among a certain appreciative coterie of nature worshippers to come up to Lenox, Conway and Ashfield in October, just to get a peep into the Delectable Land.

I would like to write you a folio embellished with autumn tints, but this is not the time to bring the offering. When frost comes I will, perhaps, send you a specimen leaf. Just now I must follow the streams up to their high sources among the trap and the granite, where the clouds float like gossamers, and the temperature is just warm enough to make the shade of the trees grateful. There the clear springs break out from the rocks on every hillside in copious flow. They course down the clefts and crevices and through the upland meadows like silver threads spun from invisible spinnarets, uniting presently in broad and limpid streams like the Mill Brook and Swift River, and these again unite and form the Westfield, which flows into the Connecticut. Every gully, ravine and valley is a channel for these gelid mountain streams, and every brooklet fosters trout be they ever so small and insignificant. This summer the rains have been copious and the water courses were at a most desirable stage. Young ladies and boys with



"BERRYING."

worms captured hundreds. Seldom do these trout grow to a greater length than six inches. Mere four-inch fish are spawners, and they seem to carry spawn from July until April. In the larger tributaries and mill ponds the size increases, and expert fishermen and small boys will occasionally lift out half-pound trout. This week we took two twelve-ounce trout from Shaw's Pond, on the Mill Stream, near the Cummington line. They dwelt under the roots of a stump near the head of the sawmill pond, and were left over from last year. From the vantage of a high marginal rock I had studied their tricks and their manners, and all summer long until the close I had employed my nicest arts in vain to tempt them. Their shrewdness saved them for the interval, but one fine day I approached the stump with stealthy step and "bated breath," and the device took! The two invincibles were captured. Never had I fished with bated breath before. No luminosity can compare with it. The lure is infallible when all else fails.

Year after year have I rambled over this hill country in quest of berries, partridges and trout, each in their season, and it never wears threadbare. Its lustre never tarnishes. July and August are the months for berries. Schools are closed, and all the children turn out with pails and baskets to gather them. Strawberries lasted until July 20. Raspberries and thimbleberries follow. They are found along the stone walls and in old cellar holes. Blackberries grow rank by the roadside, and broad patches of whortleberries and blueberries clothe the flanks of the hills. One single dealer advertises for two thousand quarts. Picking berries is quite a lucrative industry. Trout fishing ends in Hampshire and Hampden counties on August 1. In September there will be partridge shooting. Visitors and summer guests are gradually becoming attracted hither. Driving parties and cyclists come up

from the populous centres and ramble wantonly over the country roads—now up, now down, over the hills and far away. Whenever they rise a commanding eminence they overlook a valley, with a prospect of hills beyond. In the morning and evening lights, houses, orchards and groves are sharply silhouetted upon the convex line against the sky. Roads may be trailed by the trees which fringe their sides, and they are so devious that some portions remain in shade all day long. Such drives, taken at leisure, are incomparable. I am glad that lovers of natural scenery are finding out their charms. Those who come are not trammelled by behests of fashion. They wear vacation garments, not necessarily of the latest pattern; by which token the economical and thrifty may afford to spend alternate seasons at resorts which are more exacting, but less satisfying to modest tastes. For example, there is passing at the moment a hay cart loaded with festive maidens and children, all aglow with delight. Farmers are learning to cater for summer boarders, and the wayside inns are beginning to furbish up and raise their prices. In my daily excursions I am constantly surprised to find old houses undergoing repairs and betterments. With new paint the aspect becomes more cheerful. The birds seem to appreciate it, too, for they appear to be more numerous and sing louder.

Iron bridges are taking the places of old wooden ones, but I like the wooden ones best because they are rustic. Usually there is a good trout hole underneath. I often take a morning stroll ere the sun has fairly risen, and watch the wood thrushes and robins in the hedge rows, and listen to the song of the mowing machines. They sound like locusts, but locusts don't come until August, and by that time haying is over. After haying, farmers take a respite.



## FISH AND FISHING IN AMERICA.

BY WM. C. HARRIS.

The personal qualities of an angling companion will make or mar the pleasures of an outing. A selfish man is to be shunned. By selfishness is meant that quality sometimes seen in a fisher, which leads to the appropriation of the best fishing swims; a seat always in the stern-sheets; the sleeping spot freeist from roots on the tent floor; the choice bits from the pan; shirking of chores; always wanting to go east when the majority want to go west; keeping the guides at his heels and very generally demoralizing the *entourage* of an outing. Such a man goes into the woods but once with the same companions. Avoid him. In the development of his nature sensitiveness and pride hold no place, and a man without these will lie hence you cannot depend upon his angling talk, fascinating as it may be or instructive as it may seem. We have no faith in the technical skill of any man who does not love angling for the pleasure and exaltation of mind imparted by the natural surroundings of the pastime. Such a man described above cannot enjoy stream and wood life, and be selfish under the same sky that covers the dancing brooklet and his own wretched personality.

In the sad condition that most men find themselves when crossing the median line of life, or when estimating the value of those whom they have called friends and looked up to as exemplars and mentors, but few fail to realize that only one or two of their many thousands of pleasant associates have sympathetically and unselfishly become friends of long-trying faith and affection. Such is the general lot and such the punishment descending direct from father unto son, yet every man's nature, unless hardened by the growth of selfishness, is always thrusting out its "feelers" for sympathy and harmony of association; even the unsexed hermit is amenable to this great law, although his disturbed brain leads him, not unwisely as he is constituted, to seek for consolation in the

companionship of birds and flowers, which, if they cannot solace, will at least not betray him. To the baneful axiom governing the life of most worldly men of the day—"every man for himself and God for us all"—may be traced this lack of sympathetic communion between man and his fellows. "Every man for himself" means simply—"Get out of my way, dog of my blood and flesh, I have no bone for us *both* to gnaw at." Again and alas! "God for us all" may be aptly paraphrased, be it with uplifted hat—"God for none of us," until we seek ourselves to be for all men in so far as we may be able to meet our help out unto them.

Anglers when in camp are drawn into intimate companionship, sleep side by side, the same blankets cover them, are dependent upon each other for the daily comforts and amenities of life, must sit all day face to face in a boat and talk (or talk not at all) one with the other, hence they can fully realize how doleful and disappointing their outing would be under the phases of man's nature as described above, when transferred from city walls to streams or woods. How comforting is the fact to them that in nine men out of ten their nature changes at the first whiff of the forest breeze or the musical gurgle of the near-by stream, felt or heard, on the approach to the camping ground. These influences, except on the purely selfish fisher referred to, follow the ordinary man back to the trade mart, and even there, for a few days at least, refine and subdue his coarser traits. With this fact in view, may we not plead with our brethren of the bricks to leave their sordid and unceasing toil and come with us to the streams and woods. We are not asking you to indulge in a pleasant pastime for the boyish delight it gives for an hour or so, but we earnestly beg you to come with us in the interests of the people at large. As an individual help us to improve the moral and physical tone of the community; help us to show that the almost



divine qualities of soul and body with which you are endowed, have not been given for riot in the baser uses of money-getting and hoarding. Note in this connection the words of Walton :

"Look! under the broad beach I sat down when I was last this way a-fishing. And the birds in the adjoining grove seemed to me to have a friendly contention with an echo whose dead voice seemed to live in a hollow tree near the brow of that primrose hill. There I sat viewing the silver streams glide silently toward their center, the tempestuous sea, yet sometimes opposed by rugged rocks and pebble stones which broke their waves and turned them into foam.....As I sat there, these and other sights had so fully possessed my soul with content that I thought as the poet hath happily expressed it :

" 'I was for that time lifted above earth,  
And possessed joys not promised at my birth.' "

Did it ever occur to you, Brother Angler, that in the Patriarchal days, the Creator talked direct to the Prophets of old, who lived in tents pitched on the banks of streams, in the forest depths and on the tops of high mountains? And do you remember the words spoken through His prophet Isaiah, containing a warning to all of His people who had departed from the pure and primitive habits of patriarchal life? They are of deep interest to anglers. See Isaiah, Chap. XIX., ver. 8 and 10, to wit :

"The fishers also shall mourn and all they that *cast angle into the brooks* shall lament, and they that spread nets upon the waters shall languish.

"And they shall be broken in the purposes thereof, and all that make *sluices and ponds for fish*."

Pardon these somewhat digressive, but not altogether irrelevant, thoughts, which are permissible, perhaps, in the unrestrained freedom of angling talk and communion through the columns of your magazine. I believe that a true angler, thoroughly imbued with the spirit of the art, wherein a love of nature is most pre-eminent, has qualities that make a good and just man, with less "refining through fire"

than the most of mortals must undergo to reach so high a standard. Believing this, I have said it at the risk of a jeer, perhaps, and now once again to our immediate subject.

A good angler, as will have been noted, must be unselfish, a lover of nature and a patient, cheerful man, of even temper; making the best of everything, "never grumbling at ill-luck; enjoying the good and repining not at the evil, and by this last token you may know him."

A word or two as to a failing which a true disciple does not possess. We were once taken to task for printing our opinion that the pure angling spirit of the old masters of the art was in danger of being lost in the modern *craze* for improved tackle. We replied then, as we do now, for the purpose of branding it as a weakness that does not obtain among the accredited members of the craft :

"Through our intercourse with a very large number of anglers during the last five years, we have noted, with deep regret, a tendency among many of them to discuss tackle instead of methods of using it. In other words they seem to be prouder of a fine rod owned than one well handled. This is an evil and a growing one, which, in our opinion, demands correction, and being within our special province we did so without fear or favor, perhaps in language deemed too strong by those of our readers who failed to appreciate our earnest and unselfish interest in the welfare of the craft. We did not, and cannot, deny the value of books on angling or the skilled products of the tackle makers, but these are simply adjuncts to the art of angling—tools to work with. The possession of them is a pleasure but to be able to use them skillfully is a delight."

The young angler who has imbibed a love of fishing in his "bib and tucker," pin hook and "minny" days, and has grown, year by year, in enthusiasm over the pursuit of his favorite pastime, yearning for knowledge and practical experience in the higher branches of the art, is doubtless often appalled as he surveys the field of angling literature, wherein the teachings of the old and modern masters are written. His dismay is not lessened by association with

those of the craft who are called "experts" by their more modest brethren. He is apt to be confused and overwhelmed by learned discourses on the color, form, size, etc., of the "expert's" favorite lures, and the splitting of hairs from "nor' to nor'west side," on the shading of color in the wing of a fly, or the differential fraction of a millimeter in the angle of draft in a hook. Over twenty-five hundred distinct works have been published on the subject of angling; including the various additions thereof, issued from time to time, the number swells to nearly thirty-five hundred volumes, exclusive of ichthyological or purely scientific works. When we consider that nowadays the so-called expert must also be an angling bibliophile, no wonder that even the practical and stream-made angler modestly shrinks from contact with his pretentious brother of the books.

Again, the grand total of special names for artificial flies has been estimated at about fifteen hundred, every maker of them dubbing his winged insect, although made upon lines "old as the hills," with a specific title; hence the simplest forms of standard flies, formerly known as such the world over, have become changed in color and shape to such an extent that the generic fly is lost amidst its modern modifications. The names and shapes of hooks equally confuse the tyro and the old fisherman; of sizes there are about twelve hundred; of trade names about fifty; simplicity of system has given way to the iron-clad demands of trade methods. In the United States alone, the manufacture and introduction, within the last decade, of reels of various makes, sizes, mechanism, etc., have been so great that the ordinary angler is confused in his judgment as to which is best; a trial service can alone decide the question, and it is by no means unusual to hear a practical rodster say that the old click and free running reels are more reliable than the new. But such a remark is pure heresy to the modern Solon of the craft.

When selecting a rod from the many makers, about thirty different materials from which they are made, and several hundreds of sizes and shapes, are sources of perplexity and doubt to

the inexperienced; artificial baits, exclusive of flies, range in variety into the hundreds; special tackle devices, such as baiting needles, bait buckets, landing nets, disgorgers, etc., can be numbered by the score, and the "all-round angler" is by many expected to be a jack-of-all-trades, to whom the delicate manipulation of a hackle from a Christmas cock and the forging of a gaff for boating the mighty leaper of the Southern seas—the lordly tarpon—must be A B C work. A knowledge of fly-tying and feather dyeing is deemed by many a necessary accomplishment of the modern expert, and some even go so far as to deem the angler's education neglected when he does not exhibit the art of Savarin in cooking the quarry that his artistic skill has boated or grassed. Wood lore and stream lore; a knowledge of flies adapted to the changing conditions of seasons and streams; the natural history of the fluttering ephemera of the pools, their larval, chrysalis and butterfly stages, and the days, if not specific hours, when the dainty fish decide to feed upon them, must be at the tongue's tip of the modern expert, or caste is lost. Moreover and finally, but not exhaustive of the subject, he is expected to be able to give an off-hand angling monograph of every fish that takes a lure, its habits, habitat, migrations, class order, genera, etc.

Such is the high mark which the young angler is expected to train his intelligence to reach, but there is a pleasure in every step he takes, be it within the seclusion of the library; adown the rocky bedway of the stream or along its grass-grown banks; and if I have catalogued, somewhat at large, the requirements, and shown, to some extent, the absurdities of the modern estimate of the accomplishments of the "expert," it has not been with a view of underrating the value of craft knowledge or discouraging the beginner, to whom it may be said advisedly that a very slight acquaintance with the *technique* of the art, if reinforced by a love of stream work, an observant eye and a clear and ready judgment, will very quickly develop a skilled and practical angler.

In this connection I cannot too earnestly impress upon my young readers who desire to

become "all 'round" anglers, the value of a knowledge of the natural history of the water fauna of the country. Fascinating as this study is, as it is taught in books, it becomes doubly so when associated with an angler's life on the stream, where the phases of animated nature are ceaselessly changing, and with every change unfolding a new delight. It is not an idle hour to study the self-containment and posing of a patriarchal trout in his knot-rooted home pool; the wild enjoyment of the giddy troutlets, just out of school, who seem to be playing a game of shuttle, with their tails as battledoors,\* among the fluttering and falling insects of the stream; the frightened minnows of the shallows; the poise of expectant and hungry yearlings; the busy spawners of the gravel beds; the kaleidoscopic color flashes as the sun rays and shadows fall and shift upon and over the rifts and pools; the water-kissing willow tilting its leaflets on every breeze-fretted ripple; the sedate and overhanging alders, under which the lazy veterans of the reaches listlessly rise to the dropping bugs; the moss-bedded nooks of verdure; the curling lips of tiny eddies; the wild rush of mountain waters; the placidity of hill-environed lakes; the innumerable utterances from out the hollows and from along the hillsides, from the purling waters and the depths of the forest.

We now reach the outfit of the angler, or, to use a more modern and comprehensive, but rather inapposite term, his *impedimenta*. This is a matter of much importance, whether considered from the standpoint of expense or in view of the danger that lurks in the collection of it, inasmuch as the beginner may, on the threshold of his novitiate, become wedded to display or fall into that sad condition known the angling world over as that of the "potterer," of whom it may be truly said that the "divine afflatus" of the art recreative is not for him.

In selecting a rod, choose one that fits you best. Select it as you would a coat, a pair of

shoes or a cane to walk with. You select those because they fit you, and you feel at home in the use or wear of them. Does the rod fit you as you swing it through the air? Does it balance well in your hand, or is there a catch or interruption of the harmony that should exist between you? If so, discard it at once. Many anglers say that if a rod don't fit them they grow to fit the rod; that, while they prefer a stiff one (or *vice versa*), they work into the ways of a whippy rod and do good and pleasing execution with it. This will do very well for the old hands who have become sun-dried in all the tricks of "the lure" and can deliver a fly daintily fifty feet from the end of a broomstick, but young anglers must take heed. Time and application only can make a perfect angler, if such exists, and there is nothing that will act as a setback to the tyro so thoroughly as a rod out of joint with the man who uses it.

When selecting a reel, examine well its mechanism, which is most durable when least complicated; hence place no confidence in novel and intricate reel devices until fully tried during an outing. The eye may be pleased and the judgment seduced by an attractive and apparently practical attachment, or "throw-off;" a peculiar click device; a new thumb button for a drag, or a non-revolving handle, all of which may answer well or may not be "worth a cuss," as the result of trial only will determine. Hence be careful in your selection and do not hesitate to ask your older angling friends as to the qualities of the reel that may have attracted your attention. See that the spool revolves freely and smoothly without jar or clatter; that the rivets and screws fit tightly; that the reel plate lies snugly in the reel seat; that the cross bars are securely riveted or screwed and at proper distances apart; that the click sounds sharp and clear, which is measurably an indication that the mechanism is well put together and the material good. Keep in view the fact that the shorter the spool of the reel the less trouble and annoyance it will give in winding up your line, not forgetting, however, the requirements of the latter. Let the handle balance well, and, if on a reel for fly fishing, see that it is ovoid

\* Mr. Charles Hallock contended, some years ago, with much earnestness and equal plausibility, that a trout, when rising to a fly, gave it a blow with the tail, aiming to drown before seizing the insect with the mouth.

in form, that the line may not be constantly catching upon it, to your annoyance and the possible loss of a much-desired fish. Finally, get your dealer (if you can) to take the reel apart, that you may examine its construction and material. The click mechanism should be of steel; if made of brass it will not wear well.

In selecting a line the young angler cannot go far astray. The accredited makes are all good; the Cuttyhunk for bait fishing and trolling, the enamelled water-proof line for fly fishing, will serve all purposes. Braided lines do not kink, as the twisted lines are apt to do.

In buying leaders, select those that are made of the best gut; the strands should be perfectly round; the color (?) "transparent and colorless as glass; it should also be to the teeth hard like wire and free from unravelled fibres or knotted roughness."

As stated before, there are said to be over 1,500 flies of different forms and colors now in use by anglers throughout the world. To master even the names of these would entail much study, and the knowledge would be more ornamental than useful when acquired. To become familiar with their comparative killing qualities, the best months for use, the atmospheric conditions under which they are most effective, their integral make-up, with the multitudinous shades of color, material and form, would entail upon the angler so many years of library plodding among the so-called authorities of the art, that all taste for a day's fishing would be lost. It is well that it is so, for the young angler who seeks the stream for the elevation of his nature and the study of the art of angling wants no companions such as these dry-as-dust vellum-bound tomes of angling lore. Let the tyro enter upon his novitiate with a few dozen flies in his book, selecting hackles, tied palmer fashion (bushy), of red, brown, white, black, ginger, gray and black, tied on bodies of similar or contrasting colors, and winged flies of the same combinations, and he will be prepared for practical and successful work on any stream or open water between the Atlantic and Pacific oceans. The sizes of flies must of course be adapted to seasons and waters, which subject will be fully entered into

as we take up each of the fishes in future issues.

Of natural baits the resident fishermen know best as to kinds and most favorable conditions under which to use them. Consult the native, being careful, however, that he has no bait to sell, in which case a lie can nearly always be had for a bartered dollar. If the quarry sought for are in an off-biting humor, try them with live bait brought from distant waters. We have known live shrimp from salt water to kill more black bass in fresh water than the native crayfish; even the prepared salt-water shrimp, boiled and then preserved in alcohol, will kill when the home minnow apparently disgusts the bronze-backer. When still-fishing in salt water let the shedder crab be always the *piece de resistance* of your bait *menu*. It will, as a rule, kill more and larger fish of whatever species than any other lure. When trolling, the eel-tail, sand and red worms are the most attractive, as they bear a more striking resemblance to the living creature upon which the fish feed. I have often thought that the live minnow (mummichug or killifish) was not used sufficiently by salt-water anglers for striped bass or weakfish. I have found them very attractive for these game fish, especially in the gentle tide-ways and during slack water.

Artificial lures, excepting the squid, do not seem to be effective in salt water. I have, however, caught the channel bass on a spoon in Southern waters, and have heard of the tarpon being so caught, but this device has not, in my opinion, had sufficient trial in the North to justify its approval or condemnation as a lure for salt-water fish. I advise a more frequent use of it by trolling, especially when changing grounds, as the fisherman so often does in our Northern bays and estuaries. Of artificial lures, excluding flies, used in fresh water, only the spoon and phantom minnow seem to be accepted as universally killing. Other devices, such as luminous spinners, rubber worms, helgramites, butterflies, frogs, wire-framed minnows, grasshoppers, etc., all have their earnest advocates, but the two named as in universal credit are deservedly so.

Of the many sizes and makes of hooks four seem to have gained prominence and favor with the mass of anglers, viz.: the Sproat, Limerick, Carlisle and Sneck. Of these the former is used in both salt and fresh-water fishing. For exclusive use in salt water the Virginia and Chestertown are favorites on account of their great strength and line of draft. Among anglers who follow fresh-water fishing exclusively, opinions are divided as to the relative value of the four makes first above named. To the young angler we seem inclined to say: "Don't bother about names of hooks or split hairs over angles of draft. All of the hooks named will boat a fish cleverly if firmly hooked and properly handled."

[TO BE CONTINUED.]

### THE ANGLER.

BY PETRONELLA.

When purple shadows gem the mountain side,  
And morning rises like a bride,

With golden tresses all unbound,  
O! then what joy to find a flowing stream,  
And mark beneath its silv'ry gleam,  
The silent pools where trout abound.

Strange, happy musings fill the angler's mind,  
And bid him with the stream to wind,  
In peaceful freedom from all care;  
While wood birds gladly trill their merry song,  
To cheer him as he wends along,  
And hedge-blooms smile their greeting fair.

The sweetly scented breath of wild-wood things  
A happy spirit with it brings,  
That softly whispers of free life,  
And hastens him on through the water clear,  
As to a pool he draweth near,  
All eager for the playful strife.

No lover ever felt more thrilling joy  
In winning maiden, fond, but coy,  
Than surges swiftly through his breast,  
When merry coquettes of the rapid stream  
Rise quickly to his lure, and gleam  
Bright in his waiting creel, at rest.

While closely round him flowing waters spread,  
No tangle of life's twisted thread  
His peaceful pleasure can destroy;  
And ev'ning shadows as they fall,  
Hear, answ'ring to the night bird's call,  
His hearty voicings of pure joy.

## THE TROUTS OF COLORADO AND UTAH.

In the summer of 1889 the Hon. Marshall McDonald, the United States Commissioner of Fish and Fisheries, deputed Dr. David Starr Jordan to make a series of examinations of the different streams of Colorado and Utah. This examination had two general purposes: First, to ascertain the general character of the streams of the Rocky Mountains and the Great Basin, their present stock of food fishes, and their suitability for the introduction of species not now found there; second, to catalogue the fishes native to each stream, whether food fishes or not, in order to increase our knowledge of the geographical distribution of each species and to throw further light on the laws which govern geographical distribution.

The following named streams, with many of their tributaries, were examined: The Platte River; the Arkansas River; the Rio Grande and the Colorado River. In the Utah Lake Basin, Utah Lake, Proos River, Jordan River and Great Salt Lake. In the Sevier Lake Basin, Sevier River and Chicken Lake. It will thus be seen that the work of the special commission covered a wide area, the itinerary of the summer labor reaching from July 16 to August 27 inclusive.

The interesting and valuable report of Dr. Jordan and his able assistants (published in a late Bulletin of the United States Fish Commission) opens with a geographic description of the State of Colorado, which is for the most part an elevated and arid region, traversed by ranges of lofty mountains extending north and south, one of them being the main divide of the continent, which is nowhere crossed by streams. In the eastern part of the State the mountains cease almost abruptly, and give place to the sage-plains, an elevated and nearly level region which slopes gradually eastward through Kansas and Nebraska to the Missouri River. This region has in Colorado little rainfall. Its vegetation is scanty, except along the streams, where the soil may be made very fertile by irrigation. In the central part of the

State elevated and arid valleys rendered fertile by irrigation lie between the mountain chains. On the north slopes of mountains, especially northward, are considerable pine forests, while above the timber line are level grassy areas, mountain meadows, well watered and with a profusion of wild flowers. The mountain chains also sometimes inclose large flat green areas, many of them former lake beds, which have become filled with sediment and the debris of vegetation. These are known as parks, and in these the clear mountain streams pursue courses with interminable meanderings and with but slight current.

In the western part of Colorado the great folds of the granite mountains give place largely to horizontal strata. Here erosion of water on a grand scale has filled this region with gorges, the intervening rocks being left as mesas and buttes. In one case the Grand Mesa stands at a height of nearly a mile above the Gunnison River at Delta, the top of the mesa being reached by some seven or eight successive stairs, each representing a separate plane of erosion.

In the northwestern part of Colorado are many clear lakes of glacial origin, but in the rest of the State the lakes are comparatively few.

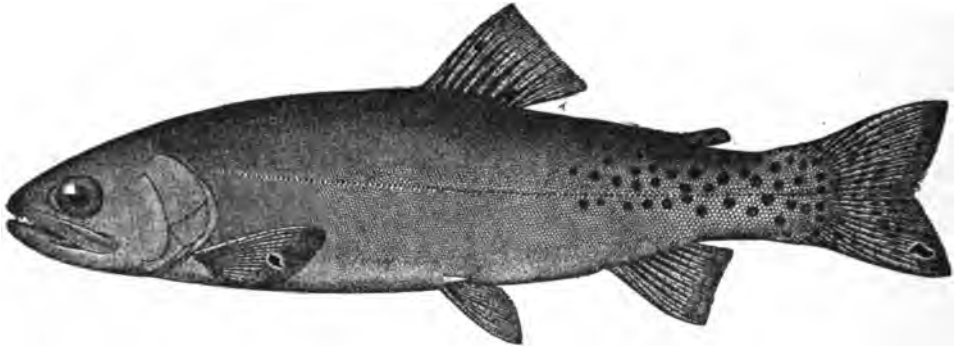
Most of the streams of Colorado rise in springs in or above the mountain meadows, many of them having their origin in banks of snow, which the clear weather of summer is not sufficient wholly to melt.

These streams are clear and very cold. In their descent from the snow-banks they are brawling and turbulent, often so much so as to be unfitted for fish life. In their course through the mountain meadows (very similar to the "Alp" pastures of Switzerland) the streams are usually of gentle current, with many windings and with occasional deep holes beloved of trout. Lower down most of them pass to the valleys through deep cañons, some of them very deep and with many rapids. Vertical

falls are, however, very rare in Colorado, and most of these cañons form no obstacle to trout. Below the cañons the stream, still clear and cold, enters the valley, where the flat bottom is usually covered deep with sediment which the streams bring down.

boulders, and its waters are sometimes as brawling in a boulder-strewn valley as in the mountains.

In some cases placer mining and stamp mills have filled the waters of otherwise clear streams with yellow or red clay, rendering

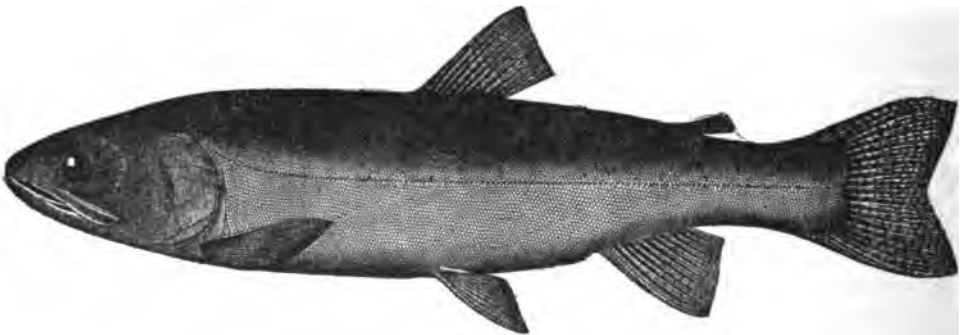


WAHA LAKE TROUT—*Salmo mykiss bowyeri*.

Here the water grows warmer, the fine silt renders it more or less turbid, and at last it becomes unfit for trout and at the same time suitable for the suckers and chubs. In the winter and spring the water is cold and clear for some distance down the valleys. In these

them almost uninhabitable for trout. Parts of the upper Arkansas and Grand rivers have been almost ruined as trout streams by mining operations. In a few streams the presence of iron springs seems to exclude all fishes.

After reaching the base of the mountains the



UTAH LAKE TROUT—*Salmo mykiss virginalis*.

seasons the trout extend their range to a corresponding degree. In the summer and fall they are more or less confined to the mountains or the cañons. Often the stream after entering the valley cuts its way through a moraine deposit. In that case its course is filled with

streams flow with little current over the ill-defined beds across the plains. They tear up the fine soil and shift it from place to place. Occasional rains swell the dry beds of "Sand-Arroyos;" the stream becomes more and more charged with clayey sediment, and in time not

one of these rivers would be recognized as the crystal-clear stream which came down the mountains. The Platte spreads out broad and shallow over the plain, and its course is full of quicksands. Its banks are rarely well defined. The Arkansas resembles the Platte, being even more muddy, however, and the Rio Grande is similar to it. The Colorado carries the peculiar erosion of the mesas to a still greater extent as it goes southward. The stream is large and swift, with treacherous currents and shifting bottom. As no rain-fall or frosts wear away its banks, it sinks deeper and deeper below the surface, until it forms the deepest gorge in the world, with banks which are vertical or like stair-cases.

In the progress of settlement of the valleys of Colorado the streams have become more and more largely used for irrigation. Below the mouth of the cañons dam after dam and ditch after ditch turn off the water. In summer the beds of even large rivers (as the Rio Grande) are left wholly dry, all the water being turned into these ditches. Much of this water is consumed by the arid land and its vegetation; the rest seeps back, turbid and yellow, into the bed of the stream, to be again intercepted as soon as enough has accumulated to be worth taking. In some valleys, as in the San Luis, in the dry season there is scarcely a drop of water in the river bed that has not from one to ten times flowed over some field, while the beds of many considerable streams (Rio la Jara, Rio Alamosa, etc.) are filled with dry clay and dust.

Great numbers of trout, in many cases thousands of them, pass into these irrigating ditches and are left to perish in the fields. The destruction of trout by this agency is far greater than that due to all others combined, and it is going on in almost every irrigating ditch in Colorado.

It is not easy to suggest a remedy for it. The valleys in question would be worthless for agriculture were it not for irrigation, and the economic value of the trout is but a trifle as compared with the value of the water privileges. It is apparently impossible to shut out the trout from the ditches by any system of

screens. These screens soon become clogged by silt, dead leaves and sage brush, and thus will not admit the passage of the water.

Perhaps most of the trout are lost by entering the ditches in the fall, when running down stream with the cooling of the water. It has been suggested that a law could compel the closing of the ditches after the harvest, allowing the streams to flow freely until March or April. In the fall the water is worth most to the fishes and least to the farmers. I am unable to say whether this plan will prove practicable or effective. This is certain, that if the present conditions go on the trout in the lower courses of all the streams will be exterminated, and there will be trout only in the mountain lakes and in the mountain meadows, to which agriculture cannot extend.

The fishes of Colorado are very few in number, notwithstanding the fact that four distinct faunal basins are within the limits of the State.

The trout (*Salmo mykiss*, Walbaum) and its varieties are found in all the mountain lakes and streams, down to a point where the summer temperature reaches sixty to sixty-five degrees, when they gradually disappear. In clear streams and streams with bottoms of gravel they extend much farther than in turbid streams or those with clay bottoms.

The Eastern brook trout (*Salvelinus fontinalis*) has been introduced into numerous streams (Bear Creek, Twin Lakes, Echo Lake in Egeria Park, Ruxton Creek, Tomichi Creek, etc.). It does well everywhere, and is said to grow more rapidly than the native trout, but this statement is denied by some partisans of the latter fish.

The rainbow trout of California (*Salmo irideus*) has been sparingly introduced, and is reported to do well. One specimen was obtained by us in Twin Lakes.

The land-locked salmon of Maine (*Salmo salar sebago*) has been introduced into Twin Lakes, where specimens are occasionally taken.

A number of carp ponds also exist in the State.

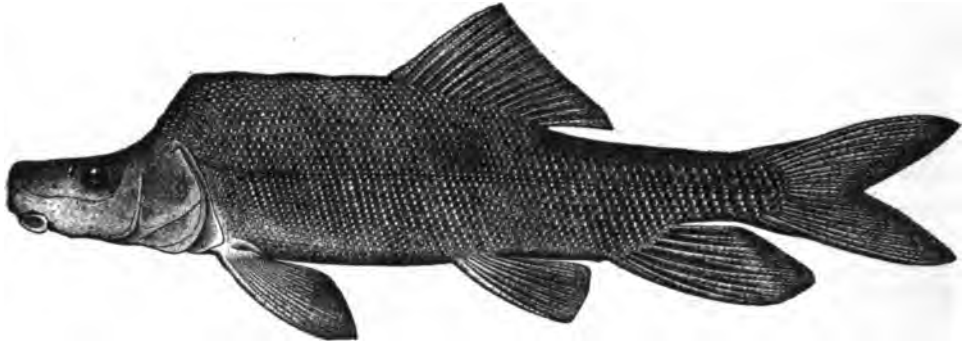
Referring to the Platte Basin, the report continues:

The South Platte rises in the elevated plateau



known as the South Park. Through the Park it flows in an undulating course over grassy fields, finally breaking through the mountains to the sage plains above Denver. It receives many tributaries from the mountains, and the

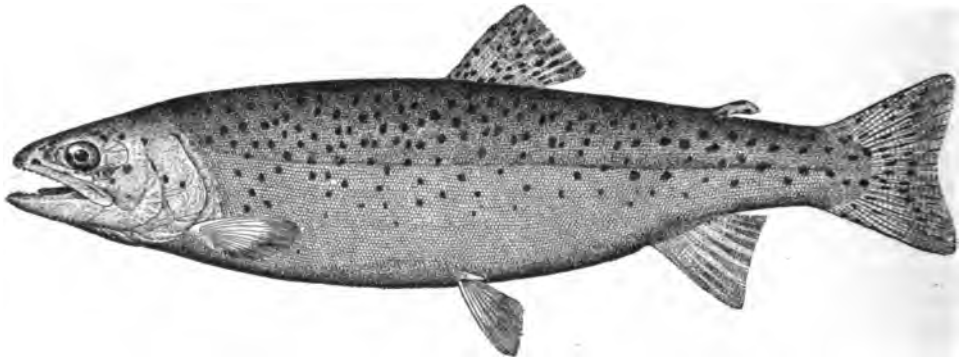
mostly the ordinary species of the upper Missouri region. The trout do not descend below the level of the parks, and are scarce even in the South Park itself, being chiefly confined to the mountain gorges above it.



THE HUMP-BACKED SUCKER—*Xyrauchen cypho*. FOUND IN THE GUNNISON RIVER, COLORADO.

waters of numerous sandy runs, dry in summer, pour in from the plains. Its water, both above and below Denver, is largely used for irrigation. Thus it becomes a shallow, muddy stream, with sandy bottom and very low banks. In the northeastern part of Colorado

At Hartsel's, Hot Springs, the South Platte flows through grassy meadows, a fairly cold stream, temperature sixty-five degrees. Trout are found in the mountains above, and frequently descend to the level of the Park, where they are carried out over the fields by the irri-



THE ROCKY MOUNTAIN OR CUT-THROAT TROUT—*Salmo mykiss*.

it meets its fellow, the North Platte, a stream of similar character, rising in the North Park. The Platte, now a broad, very shallow stream, full of sandbars and quicksands, flows eastward across Nebraska to the Missouri. The fishes of the Platte, as far up as Denver, are

gating ditches. It is said that a washtub full of young trout were picked from the ditch at Hartsel's in the fall of 1888.

Trout are abundant in Bear Creek above Morrison, both native and Eastern brook trout, the latter having been introduced.

At Middle Boulder Creek, twelve miles above Boulder, trout are in numbers, particularly in the upper part of the cañon, and the fishing is especially good in the mountain pastures above the top of the cañon. This favorable condition is likely to continue indefinitely, as the bottom of the stream is everywhere made up of boulders, so that a net cannot be used. The green-back trout (*Salmo mykiss stomias*) is abundant in the Park Range and in the mountain streams generally.

The Arkansas River rises in the mountains to the north of Leadville. It flows southward through a broad, park-like valley, grassy in its upper part and becoming arid lower down. This valley is bounded on either side by lofty mountains, with snow banks which are the source of many ice-cold streams. At Salida the river turns abruptly to the east, breaking through the mountains in a deep and rocky cañon, by which it reaches the level of the sage plains. Throughout the region above the cañon the Arkansas is clear and cold, in every way well suited for trout. Placer mining at Leadville and Granite has much reduced the number of fishes in the river by filling the water with clay, but they still abound in all the tributary streams. Below the cañon the river becomes warmer and more muddy, and no trout are found there, the fauna from Cañon City down being much the same as that of the rivers of Kansas. Arkansas River trout were found at the following points:

Arkansas River and its Lake Fork near Leadville. (Seined at a bridge across Lake Fork between Evergreen Lakes and the village of Malta, about three miles west of Leadville.)—The river and the Lake Fork are about equal in size and entirely similar in character, flowing with a moderate current through green meadows, shaded by willows, and with occasional deep holes in the bends. The streams are each about fifteen feet wide and the bottom is gravelly. The temperature is about sixty-two degrees. These streams are ideal trout brooks. Trout are very abundant.

The Evergreen Lakes are a series of trout ponds, wholly or partly artificial, fed by cold streams from the flanks of Mount Massive.

One of these streams, having its rise in the largest permanent snow field in Colorado, has been chosen by the United States Fish Commission as the site of its hatchery. No better location could be desired.

Twin Lakes.—These two lakes, formed by a moraine dam at the foot of Mount Elbert and Mount Grizzly, are the largest lakes on the east side of the divide in Colorado. The two lakes are separated also by a moraine, across which they are connected by a short stream, perhaps an eighth of a mile long. The lower lake is the larger of the two and is about three miles long by two wide. The upper is about one and a half miles by two. The lower lake is said to average forty feet in depth, its lower part being extensively shallow, the middle and the south side very deep. The bottom is largely gravelly and covered with water plants. In some places are piles of boulders. The shallow north side of the lake is full of *Najas* and other water weeds, growing three to five feet high in water ten feet deep. Among these plants the trout chiefly feed. In them they often escape after taking the fly by breaking the leader. "Shrimps" (*Gammarus*) are very abundant in the weeds. The upper lake is a little colder and not quite so well stocked with fish. Its area is about one-half that of the lower lake. The inlet of the upper lake is a very clear, cold stream of considerable size. A waterfall in this stream formerly checked the ascent of the trout, but it has now been destroyed by blasting.

In Twin Lakes the Commission found a new form or variety of the mountain trout, an interesting discovery to anglers, of which Dr. Jordan writes:

"Besides the common green-back trout another trout has long been known to anglers to exist in Twin Lakes, and Messrs. Gordon Land and George R. Fisher have in one way or another at different times called attention to it.

"Mr. Fisher accompanied me from Leadville in search of the fish, and a morning of fly fishing secured for us about ten fine specimens. These represent a very distinct form or variety of the mountain trout, which we recognize as a

distinct sub-species under the name of *Salmo mykiss macdonaldi*. We have taken pleasure in naming the yellow-fin for the United States Fish Commissioner, the Hon. Marshall McDonald, in recognition of his services in connection with the propagation of the American Salmonidæ.

"It is not unlikely that this may prove to be a desirable variety for introduction into gravelly ponds and lakes in other regions.

DESCRIPTION.—Head, 4 to 4 1.10 in length; depth, 4 1.5 to 5. D. 2, 12. A. 1, 11. B. 10. Scales, 40-184-37: about 125 pores. Length of types, 6 to 10 inches.

Body more elongate and more compressed than usual among the trout. Head long, compressed, the snout moderately pointed; mouth rather large, the jaws sub-equal, the maxillary extending beyond the eye,  $1\frac{1}{4}$  to 2 in head; hyoid teeth present, small; opercle longer than usual, its greatest length  $4\frac{1}{2}$  in head, somewhat greater than eye, its posterior margin strongly convex. Eye  $5\frac{1}{2}$  in head; snout  $4\frac{1}{4}$ ; gill-rakers short,  $\times \times 10$  in number.

Scales quite small and regularly placed. Pectoral fin moderate,  $1\frac{1}{2}$  in head; ventrals 2. Caudal moderately emarginate, the lobes equal,  $1\frac{1}{2}$  in head.

Color, silvery olive: a broad lemon yellow shade along the sides, lower fins bright golden yellow in life, no red anywhere except the deep red dash on each side of the throat, which is never wanting in *Salmo mykiss*. Body posteriorly and on dorsal and caudal fin profusely speckled with small pepper-like spots, smaller than the nostril and smaller than in any other of the forms of the *Salmo mykiss*. Occasionally these spots extend forward to the head, but they are usually sparse on the anterior half of the body.

"The yellow fin trout is largely on the gravels and about the north or sunny side of the lake. It is not often taken in deep water. It spawns in spring, and the suckers devour the spawn in the streams and spawning beds. The trout, however, feeds freely on young suckers, and sometimes on young trout. This species has the lower fins bright yellow; there is a broad yellowish lateral shade, by which the species can be recognized in the water. The black spots are numerous and very small. There is little red under the throat and none at all elsewhere. The flesh is paler and more watery than that of the green-back trout, which is usually regarded as the better food fish. This paleness of color may be associated with its feeding habits, the trout which feed on crustacea having the redder flesh.

"Since this report was sent to the printer I have received from Mr. George R. Fisher,

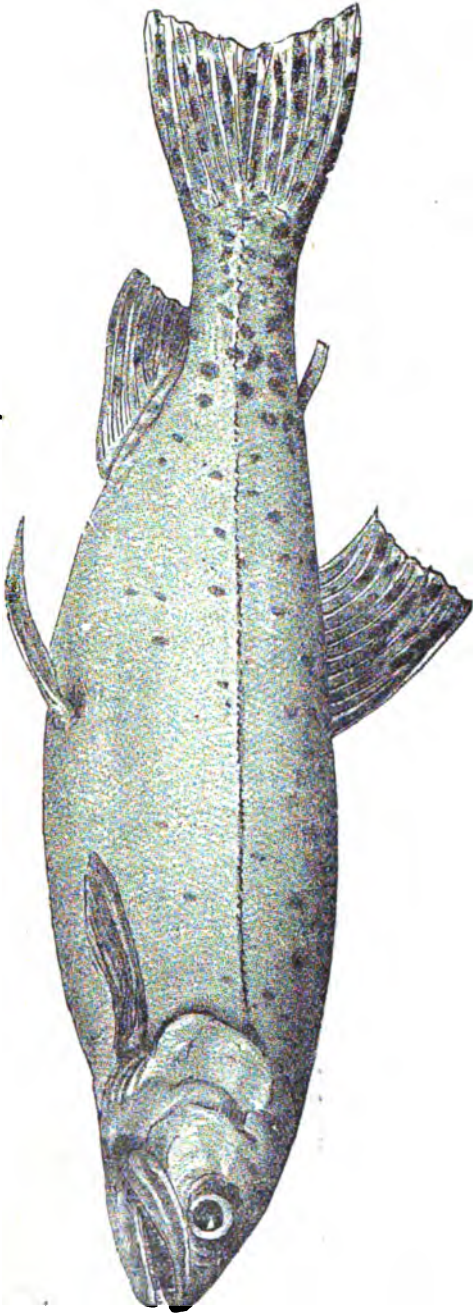
of Leadville, a very fine specimen of the yellow-fin trout. Mr. Fisher writes under date of June 2, 1890:

"I returned to Leadville in the spring and was here when the yellow-fins gathered at the mouth of the creeks immediately after the ice left the lakes, waiting for the first rise in the streams. They appeared in schools at first, but as the water raised they paired off, and went to the spawning beds in pairs. Before they mated they would take a trolling spoon or fly, and I believe grubs or minnow bait, but after pairing (they were nearly ready to spawn then) they would take nothing, and could only be taken with a grab-hook or spear. The largest yellow-fin taken this spring of which I know personally weighed eight pounds eleven and a half ounces, and I believe that was the heaviest taken. This fish had been dressed before I knew of its capture, or I would have sent it to you. I got one from two fishermen named Tyler and McDonald which weighed something over seven pounds when first taken from the water, though I can't give the exact weight. This fish I have put in alcohol sealed up in a tin box and sent to you by express. It was kept on ice four days before putting in the alcohol, and weighed at that time six pounds fourteen ounces. This weight was carefully made and I know was correct. I have kept the fish here just one week since it was put in the alcohol, and I see it has lost a good deal of the yellow color on the fins and throat."

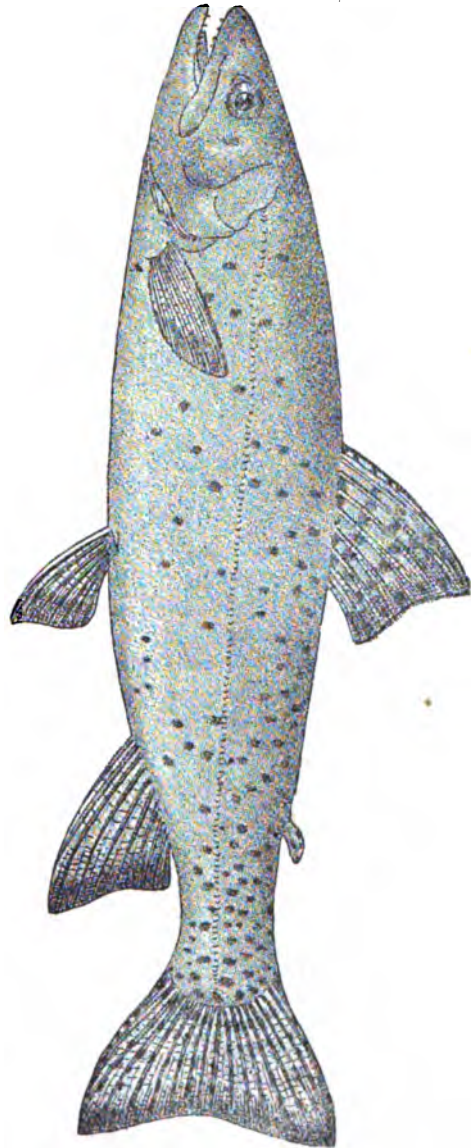
The green-back trout (*Salmo mykiss stomias*) is very common in all the upper tributaries of the Arkansas River and in the Twin Lakes. From the common trout of the upper Missouri region it seems to differ somewhat, being of a greener color, with less red, and with redder flesh, all matters of very slight importance from the point of view of the systematist. The black spots are larger than in any other of our trout. The mouth is rather small and the scales are smaller than usual among these trout.

These facts seem to indicate a distinction from the ordinary *Salmo mykiss* sufficient to justify the recognition of a sub-species, although the differences are small, and some of them

THE COLORADO RIVER TROUT—*Salmo gairdneri*.



THE RIO GRANDE TROUT—*Salmo gairdneri*.



may be inconstant. The trout taken by us in tributaries of the Platte seem to be identical with the "green-back trout" of the Arkansas. The name *Salmo stomias* was given by Cope to specimens at first stated by him to have come from the "Platte River, at Fort Riley." Later he stated that these came "not from the Platte, but from the Kansas, a very different river." Fort Riley is a town on the Kansas River, east of the centre of the State of Kansas. The Kansas River rises in the sage plains of Eastern Colorado. It contains no trout anywhere. In fact, there are probably no waters in which trout can live within five hundred miles of Fort Riley. It is safe to presume that the types of *Salmo stomias* did not come from Fort Riley. It is probable that they came from some point on the South Platte, and on this supposition I have adopted the name *stomias* for the trout of the Platte.

The green-back trout seldom exceeds three-fourths of a pound in weight. It is very abundant in the streams of the Upper Arkansas as well as in the Twin Lakes. It spawns in spring, in snow water if possible, and it will leave spring water to find snow water. In winter, however, they seek for warmer waters. It is said that, when the winter breaks up, the trout are too blind to see bait. In color the green-back is green, or even almost black on the back. The lower fins and the throat are bright red, but there is not much trace of the red lateral band. The black spots are large and mostly confined to the posterior part of the body. In some cases these spots are ocellated with paler. At the spawning time, in May and early June, the males have much red, but later the sexes become similar. In specimens found about pools there is often much red even in the summer. Those from the deeper parts of the lakes are always bright green, with a little red.

At the hatchery of Dr. Laws it appears that this trout will not willingly eat young suckers or minnows, its food being largely young crustacea.

The flesh in these trout is extremely red, this color being probably heightened by the character of its food. In the specimens from

Arkansas River the body is plumper and softer than in those from Twin Lakes.

In connection with our study of these two forms I have had occasion to compare a large number of trout from various streams in the Rocky Mountains and westward. Besides the rainbow trout, *Salmo irideus*, which is chiefly confined to California, and the steel-head trout, *Salmo gairdneri*, found chiefly about the river mouths in Oregon and northward, both of which species are characterized by the large size of the scales (from 130 to about 140), all our other Western trout of the genus *Salmo* seem to belong to a single species. For this species the oldest scientific name is that of *Salmo mykiss*, Walbaum (1792). To this name *Salmo purpuratus* (Pallas, 1811) and *Salmo clarkii* (Richardson, 1836) must give precedence.

This species is distributed from Kamtschatka and Alaska, southward to the mountains of Chihuahua, and eastward along the flanks of the Rocky Mountains so far as the clear water of the mountain goes. It seems to be absent in southern California, its place being taken by the *irideus*, but in all other suitable waters, excepting some streams in northwestern Wyoming, where waterfalls keep it back, this trout may be found.

Several well-marked varieties occur in isolated lakes, and in general large streams or streams with a large food supply yield larger trout than small streams or streams with scanty food. All forms of *Salmo mykiss* have distinct hyoid teeth in life. All have a red dash below the lower jaw, from which comes the vernacular name of "cut-throat trout," and all show a small diffuse dark spot behind the eye.

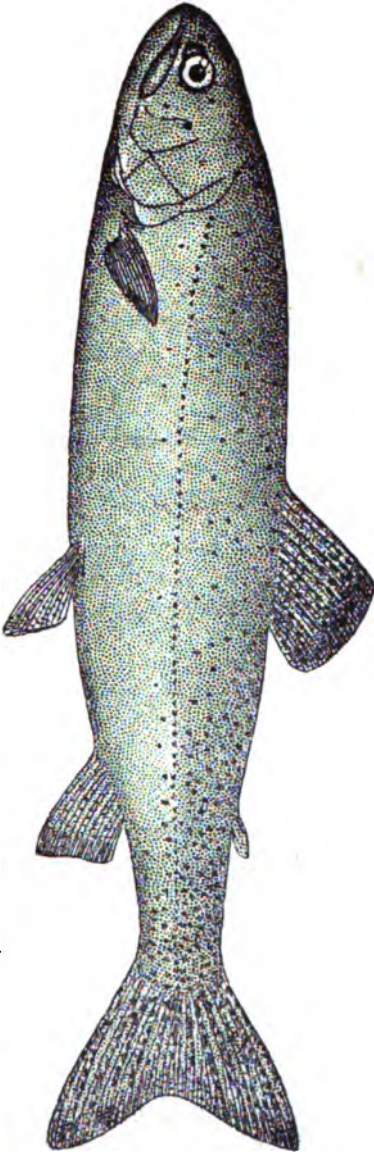
Dr. Jordan now describes the various forms of mountain trout found in the Arkansas Basin:

The typical (*i. e.*, first known) form of the species (*Salmo mykiss*), found in the waters, both fresh and salt, of Alaska and Kamtschatka.

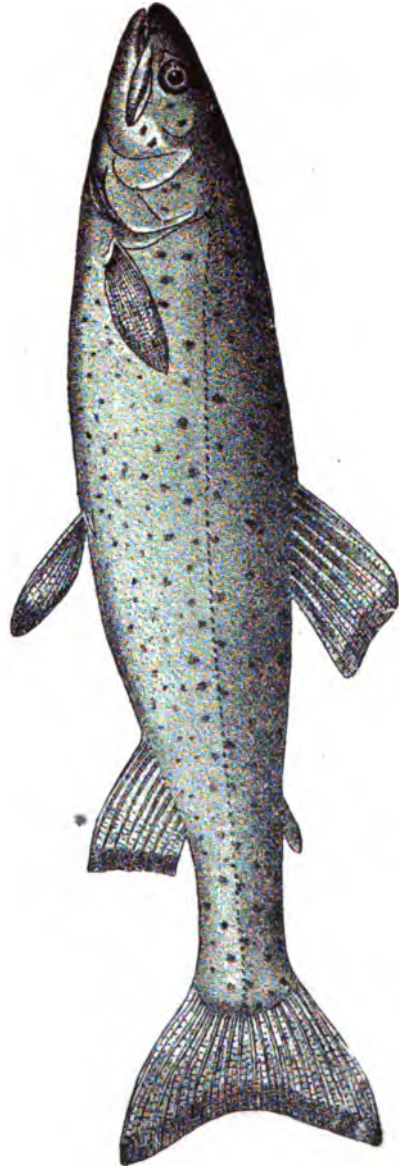
Large, black-spotted, both fore and aft, and reaching a weight of ten to twenty-five or thirty pounds. Sea-run specimens are much paler in color and grow larger.



TWIN LAKE OR YELLOW-FINNED TROUT—*Salmo mykiss macdonaldi*.



LAKE TAHOE TROUT—*Salmo mykiss kaskaw.*



"Cut-throat trout" (*Salmo mykiss clarki*, Richardson).—The common trout of both sides of the Cascade Range, profusely and usually rather finely spotted, the spots scarcely more numerous behind than before.

Trout of the Upper Missouri (*Salmo mykiss lewisi*, Girard).—This large trout seems to have the spots, on the average, larger than on those west of the mountains, but even this difference is questionable, and doubtless neither form requires a varietal name.

The trout of Lake Tahoe and neighboring waters (*Salmo mykiss henshawi*, Gill and Jordan).—A fine, large trout, distinguished mainly by its longer and more conical head. Spots large, equally distributed, extending on head and belly. Scales rather small, about 180.

Colorado River trout (*Salmo mykiss pleuriticus*, Cope).—The common trout of the basin of the Colorado, its range extending to the mountains of Arizona. Variable in color, size and form, with its surroundings, and in most respects substantially identical with *lewisi*, the chief difference being that in this form, as in *spilurus*, *stomias* and *macdonaldi*, the black spots are usually much more numerous on the posterior part of the body, while the head is usually free from spots. This is, however, not universally true. In one specimen, from Trapper's Lake, the entire body from head to tail is closely and coarsely spotted. Generally the black spots are rather large, but in some specimens the spots are small, smaller than in any of the other forms except var. *macdonaldi*. In a considerable number taken in Eagle River, Colorado, the spots are as small and as close set as in var. *macdonaldi*, and the usual red color of the lower fins is in these specimens changed to pale orange. Although the coloration is almost that of *macdonaldi*, there are other differences, the most notable being in the short opercle,  $4\frac{2}{3}$  to 5 in head ( $4\frac{1}{2}$  in *macdonaldi*). The body is also less elongate than in *macdonaldi*. In var. *pleuriticus* there is almost always a very distinct red lateral band, and the lower fins are more or less red.

The trout of the Rio Grande (*Salmo mykiss spilurus*, Cope).—Abounding in all its tribu-

taries and extending southward in the mountains to northern Chihuahua. This form is apparently wholly identical with var. *pleuriticus*, except that in the specimens examined the scales are less crowded forward, so that the number in a lengthwise series is less. I count 155 to 160 in Rio Grande specimens; 185 to 190 in those from the Colorado. From the trout of the Great Basin (*virginalis*) *spilurus* differs chiefly in the arrangement of its spots.

The trout of Utah Lake (*Salmo mykiss virginalis*, Girard).—The trout of the Great Basin are profusely and not very coarsely spotted, the spots being numerous anteriorly as well as posteriorly, confined to the back rather than to the tail. In several examined, the scales are a little larger than in any of the other forms, 140 to 150 in a lengthwise series, the scales on the anterior part of the body being less crowded than in *spilurus* and *stomias*. In other respects *virginalis* scarcely differs from *clarki*. The large fishes from Utah Lake are very pale in color, the dark spots few and small, much as in var. *macdonaldi*, but fewer, and more on the back. This pale coloration is characteristic of lake and sea trout in general. It is doubtless partly due to the alkaline character of the waters of Utah Lake.

*Salmo mykiss stomias*, Cope.—Found in Arkansas and Platte rivers. A small trout, with very large black spots and small scales. It closely approaches *lewisi* and *spilurus*. The black spots are always larger than in any of these, and mostly gathered on the tail.

Yellow-finned trout (*Salmo mykiss macdonaldi*, Jordan and Evermann).—The most strongly marked of these varieties so far as color and general appearance are concerned. The head is long and the opercles longer than in most of the others. Probably an early offshoot, perhaps inhabiting these lakes prior to the advent of var. *stomias* in the same region. The nearest relative is *pleuriticus*, from which I think it is descended.

*Salmo mykiss bouvieri*, Bendire.—Found in Waha Lake, in Washington, a mountain lake without outlet; a peculiar form, with short, blunt head, large eye, moderate (160)



scales, and the spots confined to the posterior half of the body. This form seems to be an off-shoot from *clarki*.

Besides the native trout, *macdonaldi* and *stomias*, the following trout have been introduced into the Twin Lakes:

Eastern brook trout (*Salvelinus fontinalis*, Mitchill).—This species does well, growing faster than the native trout. It seems to prefer the colder waters of the upper lake.

Rainbow trout (*Salmo irideus*, Gibbons).—This species is doing well, and is already becoming common.

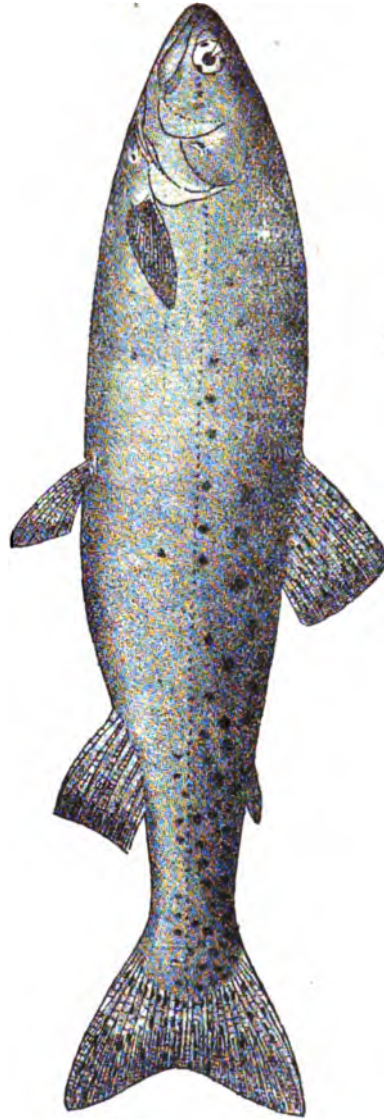
*Salmo salar sebago*, Girard.—The land-locked salmon was introduced about 1885. They grow very slowly in the Twin Lakes, and rarely exceed one-half pound. They are occasionally taken.

In the Rio Grande Basin the only trout found was the *Salmo mykiss*, Walbaum, D., C. (var. *spilurus*, Cope), which is abundant in the upper Rio Grande and in all tributary streams down to the level of the valley. The Rio Grande trout have the dark spots rather large and more or less confined to the dorsal and caudal fins and the region between them, though often, especially in the young, extending on the head. They reach a fair size, a pound or two in weight, but are doubtless not as large as the trout of the Upper Colorado. The Rio Grande trout was first described as a distinct species by Prof. Cope under the name of *Salmo spilurus*. The types of this nominal species came from the Sangre de Cristo.

Referring to the Colorado Basin, the report continues:

The Colorado River is formed by the union of two large rivers, Green River and Grand River. Both of these have their source in the mountain streams of the western slope of the Rockies, and are very clear and cold in their upper courses. Lower down they become gradually turbid and yellow, and finally the Colorado becomes one of our muddiest streams. The headwaters everywhere are full of trout, and all the tributary lakes, many of which exist in northwestern Colorado, are especially well stocked. The fish fauna of this great

ARKANSAS RIVER OR GREEN-BACKED TROUT—*Salmo mykiss stomias*.



river is very scanty. Trout were found at the following localities:

Sweetwater Lakes in Eagle County, Colo.—Some twenty-five miles above Glenwood are the Sweetwater Lakes, noted for trout. Several specimens of these trout were procured from fishermen.

Trapper's Lake, in Garfield County, Colo.—This is a noted locality for trout fishing, in the mountains some forty to fifty miles north of Glenwood. Several fine examples of these trout were procured from anglers.

Eagle River.—This is a very clear, cold stream, flowing into Grand River from the east. It is very well stocked with trout, large numbers being taken with the fly. At Gypsum, where our collections were made, the river is about twenty feet wide and two to four feet deep. The bottom is rather smooth, but the water is too cold for seining.

Roaring Fork of Grand River.—The Roaring Fork rises in the mountains above Aspen, and enters the Grand from the South near Glenwood. It is very clear but not very cold (temperature sixty-seven degrees). Its lower course is swift, its channel filled with boulders washed from the great moraine through which it breaks its way. It is about two rods wide and two to four feet deep. Seining is impossible. The stream is said to be well stocked with trout.

Cañon Creek.—This is a small stream flowing into the Grand below Glenwood. Some trout from this stream were secured from a fisherman.

Gunnison River, at Gunnison, Col.—The Gunnison is the chief tributary of the Grand, entering it from the south at Grand Junction. The Gunnison rises on the west slope of the Main Divide. Its upper course is largely quiet, flowing through mountain pastures with willow-covered banks. Below Gunnison it cuts its way through the Black Cañon, one of the deepest in Colorado. Above the cañon the river is very clear and full of trout. Below the cañon the water is warmer and less clear; trout are scarce, and suckers and round-tails become abundant. The river at Gunnison is swift, with gravelly or rocky bottom; some

three rods wide and two to four feet deep. In the cañon are many rapids and pools six to twenty feet deep.

Tomichi Creek, near Gunnison.—This is a clear stream about six feet wide and two to twenty inches deep, flowing in many windings, with little current, and with grassy banks covered with small bushes. It is not so cold as the river (about seventy-two degrees); its bottom has a good deal of black muck. White ranunculus and other water weeds abound, and the stream much resembles a New England trout brook. The Eastern brook trout (*Salvelinus fontinalis*) was successfully introduced into Tomichi Creek about 1883. Both this and the native trout were abundant in the upper course of the stream.

San Juan River.—The San Juan is one of the chief tributaries of the Colorado, having its source in a considerable number of large, clear mountain streams, which head in the mountains of southwestern Colorado (Sierra San Juan, etc.), to the west of the Main Divide. All these streams are well stocked with trout, their fauna being precisely like that of the Gunnison.

Rio de las Animas Perdidas.—The Animas River is the largest tributary of the San Juan. It rises in the mountains above Silverton. Above its cañon of "Lost Souls" it is clear, shallow and swift, flowing through an open cañon with a bottom of rocks. In its upper course it is said to be without fish, one of its principal tributaries, Mineral Creek, rising in Red Mountain and Uncompahgre Pass, being highly charged with salts of iron.

In the deep and narrow "Cañon de las Animas Perdidas" are many very deep pools, said to be full of trout. Below the cañon is "Hermosa Park," in which, for some fifteen miles, the river flows over sandy bottom, with many deep holes and slight current. In these holes are many trout, and with them *Pantosteus delphinus*, *Agosia yarrowi* and *Cottus bairdi punctulatus*.

Rio Florida.—This is a clear, cold stream, flowing into the Animas below Durango. It was seined at several points above the bridge about eight miles east of Durango and north of

Florida Station. It flows through a wooded valley over round boulders, and with few deep places. Trout are abundant.

**La Plata River.**—West of the Animas River is the Rio la Plata. It rises in the mountains above Fort Lewis, but the water mostly sinks in the sand and gravel below the fort. There are some trout here, but it is said that the stream contains too much iron to be well adapted for fish. It was not visited by us.

**Rio de los Pinos** (seen at Ignacio), the next river east of Rio Florida, is a clear, swift stream, with gravelly bottom, two rods wide and one to three feet deep. It runs through a broad valley which may become valuable for agriculture. I am told that Patrick Brothers have a trout hatchery further up the river at Los Pinos. Like the Animas, this is an excellent trout stream.

**Rio de las Piedras**, said to be the best trout stream in the San Juan basin, is similar to Los Pinos, but smaller. **Rio Navaja**, which flows into the San Juan near Juanita, is also similar; a clear stream with gravelly bottom and wooded banks. **Rio San Juan**, which receives the waters of all these, is, when crossed by the railroad at Arboles, about the size of Los Pinos at Ignacio. Its water is warm and not quite clear; the bottom of gravel and stones. About Pagosa Springs above Arboles, it is a trout stream. Below Arboles it becomes very yellow, and at last it bears a volume of very muddy water into the Colorado.

Trout (*Salmo mykiss*) are very abundant in all the headwaters of the Colorado and its tributaries wherever the waters are clear and cold. These trout have for the most part the dark spots large and chiefly confined to the posterior part of the body. One specimen from Trapper's Lake is coarsely and closely spotted from head to tail. Others from Eagle River at Gypsum are finely spotted on tail only, repeating the coloration of var. *macdonaldi*, from which they differ mainly in the shorter opercle and the less elongate body.

As a whole, the trout from the Colorado approach most nearly to those from the Rio Grande, but in the specimens counted by me

the scales are a little larger in the Rio Grande fish.

Coloration in life of trout from Trapper's Lake, olivaceous; lower fins red, sides with a crimson red band on level of pectoral, present in every one of eleven specimens. Flesh mostly salmon red. Black spots large, varying much in number, in some much more numerous on the tail; others are closely spotted even to tip of snout. Some with the head spotted, others not. Spots extending low on the sides, usually some on the anal; dorsal and caudal profusely spotted in all.

The trout from Canon Creek seem to be the young of these; smaller, paler, the spots more confined to the tail. Red markings rather orange than crimson. All show traces of a red lateral band and have the lower fins red. All have much red under the throat and on branchiostegals and opercle. Some of them show round orange blotches on lateral line anteriorly.

Trout from Sweetwater Lake are like those from Trapper's Lake, but with the spots encroaching more on the belly.

Trout from Eagle River show more resemblance to the yellow-fin of Twin Lakes in the small size of the spots and the plain coloration. Their place seems, however, to be in var. *pleuriticus* with the others from the Colorado Basin.

To the east of the Wahsatch Mountains Utah is chiefly an arid desert, with little rainfall, scarcely any vegetation, and no permanent streams of any importance except the Colorado itself. The whole surface is made up of adobe hills and barren mesas, deeply scored by the erosion of the brief rainy season. Except in the Colorado and in a few brooks and ponds near the crest of the Wahsatch, there are no fishes in eastern Utah. West of the divide of the Wahsatch lies the Great Basin. This is a high, arid plane, largely alkaline, and crossed by numerous short but abrupt mountain chains.

The lowest part of Salt Lake Basin is occupied by the Great Salt Lake, while other depressions are occupied by other lakes or alkaline sinks, also without outlet. The largest of

These in Utah is Sevier Lake. Into these lakes and sinks flow the waters of multitudes of clear streams and springs having their source in the mountains. Most of these streams are well stocked with trout and whitefish in their upper courses. The water farther down is now nearly all consumed by the irrigating ditches of the Mormon settlers, and in Utah, as in Colorado, millions of young trout are each year destroyed by venturing out into these ditches, whence they are scattered over the fields and left to perish. All the valleys of western Utah were formerly covered by the waters of a great post-glacial lake known to geologists as Lake Bonneville. The evidences of the former existence of this lake are everywhere visible in the form of terraces on the sides of the mountains at a considerable height above the present levels of Utah Lake and the Great Salt Lake. Lake Bonneville had probably its outlet to the north through the Snake River. The former connection of the now isolated lakes in the Great Basin must explain the close similarity in the fish faunæ, but we cannot tell how close this resemblance is until the fishes of the Great Basin of Nevada, the bed of the former Lake Lahontan, are thoroughly investigated.

The trout (*Salmo mykiss*) is very abundant in Utah Lake, spawning in the shallow parts of the lake and in the tributary streams which it ascends to the headwaters. The Utah Lake trout have the coloration of the Oregon trout, var. *clarki*, but the dark spots are usually somewhat smaller. The only differential character lies in the greater size of the scales, the number of these in a horizontal series being usually about 150.

The large trout of the lakes are deep green in color, the sides silvery, and the dark spots small and faint. Lower fins red. Upper fins yellowish. The usual red dash under the throat is never absent in this species. An excellent account of the habits and economic value of the Utah Lake trout has been given by Dr. Henry C. Yarrow (Rept. Lieut. Wheeler, Expl. W. 100th Meridian, V, Zool., pages 685-693).

No better trout for the table exist than those of the Utah Lake variety. They reach a weight of three to ten pounds. In a single haul of the large seine made in a channel on the south side of the lake, fifty trout, ranging from two to three and a half pounds, were taken.

The Sevier River rises in Panquitch Lake, in southern Utah. This lake is in the mountains, and is noted for its trout and whitefish. The river, after leaving the mountains, flows northward through a desert country. Its largely alkaline waters are drawn off for irrigation and are reduced by evaporation. It is ultimately lost in a large alkaline pool or sink known as Sevier Lake. In this lake are no fishes.

The Sevier River was seined about the railroad bridge, some seven miles west of the village of Juab. The river has here a bottom of gravel and firm sand or adobe. It is about two rods wide and one to four feet deep. The water is somewhat muddy, warm (seventy three degrees), and full of small fishes. It is said that trout (*Salmo mykiss virginalis*) and whitefish (*Coregonus williamsoni*) descend the river in the spring as far as Juab.

## THE BEST OF THE BEAVERKILL.

BY ROBIN RUFF.

The day was nearly done, the sun being within half an hour of the tree tops, when my driver pulled the horses up before Weaver's door. Twenty miles from Livingston Manor, it is called; Irish miles, I call them, because they always seem so long. I was mighty glad that the journey was finished, for I was tired out with the long drive, but knowing my recompense was just down back of the house in the clear running water, I replied to Weaver's: "Will you have supper now?" "Not yet, old man; fish comes before meat, you know." Then hastened to my room, soon to appear again clad in fishing togs, with long waders, and rod in hand.

Walking down through the field, I entered the brook at the ford, and then waded down a short distance. There is something very peaceful looking about that bit of the river, no falls, rapids nor fine pools, as it winds its way through level land, closely shut in by trees and bushes. There is nothing one can see but rapid water, that murmurs so softly as it swiftly glides along, as the green leaves, fanned by a light breeze, wave gently to and fro on either side, with the bright blue sky overhead. Such scenes are absolute rest for me. I well remember the first time that I fished this part of the stream.

It was early morning, and having started in at the upper edge of Weaver's farm, I had come down to this point without having raised a fish. While standing there and changing my cast of flies, the sun showed up over the tree tops down stream, and very shortly its bright rays were kissing the surface of the water. At that moment, as far as I could see both up and down stream, countless myriads of small trout, yearlings they all seemed to be, began jumping; the noise they made was like that of heavy rain drops falling upon the water. Turning my back to the sun and looking up stream, the various shades of color in the little fellows

were brought out so remarkably that the sight was one to be long remembered. This jumping continued for possibly ten minutes, and then suddenly ended, and all was as still as before; the baby trout had had their morning romp.

Standing there and dreaming away the time under the soothing influences of my surroundings, I was suddenly awakened to the fact that a short distance below me a solitary trout had broke water at least three times. Working down to casting reach. I gave him a brown hen and a ginger hackle, the latter as a dropper, and so strongly did he favor the lighter color that he was soon in the creel. From this to the end of the meadow I took six, of from six to seven inches long, and then went back to supper. Generous slices of fried country ham, plentifully flanked by newly fried and really fresh eggs, with griddle cakes swimming in new butter and sure enough maple syrup, and these well supported by such trifles as cottage cheese, apple pie, marmalade, cakes, cookies, tea and Simon pure milk, constitute a meal that no angler can afford to trifle with. Weaver sets a bountiful table. After this meal, and sundry pipes, the tired angler may retire to his couch and fairly hope to escape the fearful mare who so frequently reverses the natural order of things and does the riding herself. Having arranged that my traps should be forwarded the next day to Beaverkill, I retired.

Rap! rap! rap! on my door. "Four o'clock, sir," said a voice on the outside, and I bounced out of bed. After a hearty meal and a good-bye to Weaver, I started for the river. Again entering at the ford, I crossed and walked up stream. Just above Weaver's line the stream turns a sharp corner, and this corner is a very fine and deep pool. I must confess that here I became a poacher, for this pool is within the preserve of the Balsam Lake Club. I here rose, fastened to and creeled two fine trout, and

then started down stream. On the way down I caught quite a number, but let them all go, though many were full six inches. At the lower end of Weaver's place an eight-inch fish took the fly, and into the basket he went. Shortly after this I again struck private water, the preserve of the Lill Club. Reeling up the line, I lighted my pipe and then took my way leisurely along the stream, which is here heavily wooded on either side. Very soon the bed of the river, and the shore on either side, become one solid mass of rock, the grand formation extending for some distance, and ending in a fall of several feet. Meeting here a member of the club, to whom I introduced myself, I received a pressing invitation to try my luck, and, taking a half-pound fish from under the fall, I went on my way rejoicing, very soon coming to a large opening, at the right of which stands the club house. Passing on to the lower limit of the club's waters, I again fished, rising and taking a good many, though mostly too small to keep, until I came to Ode's Mill, formerly Jones' Mill, two miles from Weaver's.

There is a grand fall here, thirty to forty feet high, I should think, and of course below it a splendid pool. It seems most remarkable to me that I have never been able to get a big trout there, but the fact remains that a half-pound fish is the largest that faithful labor on that pool has brought to my basket. After all I should not wonder at this, for I have never had morning or evening fishing there, only that of midday, and that was during early August. Later, when the fish are working up stream, some old mossbacks must lie in there. Below the mill begins what I think is the best of the Beaverkill. About two and one-half miles more of stream and I reach the Alder Pond Brook; this comes in from the right and is a great breeder of trout. The Alder Pond property has within the last three years been bought up by some Kingston parties, who have raised the pond to an area of ninety acres, and have established a hatchery having a capacity for hatching half a million trout. This must be of great benefit to the river. One mile and a half farther down I come to the brook that

flows from Murdock's Pond, which is about one mile away to the right. This pond contains lots of small-mouth black bass, and big fellows, too. On the shore of this pond there is a boarding house kept by John Slater, who sets a tip-top table. One mile more and I have reached Jim Murdock's, five miles from the mill, and as it is nearly dark, I shall put up for the night. Seven miles is a very long stretch of water to get over in one day, and to do it one can do no close fishing. Murdock is one of the old-timers in that section, a landmark, so to speak. There are very few of the old Beaverkill fishermen who do not know him, and they all like him, for he is a "jolly old soul" and an A1 angler; his house is pleasantly located and well kept.

From Murdock's it is one mile to Shin Creek, where there is a small settlement. Here the angler will run against a snag in the person of one Hardy, who is dead sure to order any one off the stream, and it is go or fight, for Hardy is a man of brawn and muscle. Fortunately he does not cover much water, so one can easily walk around him. Shin Creek has a record for trout that I believe has never been beaten, so far as numbers go, but it is now a back number; its best days are long past. From Shin Creek to S. A. Voorhee's place is one and one-half miles. I pass Sprague's on the way. Both of these parties keep excellent houses, and the river is good fishing. One and one-fourth miles more and I come to Jersey's place, who also keeps open house. Splendid pools near Jersey's, in which I have had grand fishing. From here down to Ellsworth's Dam it is about one and one-half miles, much of it very rough wading, and on which I have never had very good luck. I am now at Beaverkill P. O., five miles from Murdock's, six miles from the Manor and seven miles from Rockland. Having made another long day's fishing, and night being at hand, I again haul off. Ellsworth has entertained boarders here for many years, but hearing that he has given up his place, for which I am very sorry, for Hank was one of the right sort, I shall put up with Jay Davidson, who has a fine place. Davidson is also a good fellow,

and more than that, he is a prime fly fisherman.

One mile below Beaverkill, and up on the mountain side, Miss Stone keeps a charming place. From the piazza of her house you overlook a beautiful little lake that is within a stone's throw, and is stocked with small-mouth black bass. At the dam I have caught many fine trout, my largest being one and one-quarter pounds. Half a mile below the dam, and on the left-hand side, the School House Brook comes in. This brook is full of trout, most of them small, and it runs through one of the prettiest little glens that I ever saw. Fall after fall in quick succession, ranging from five to thirty feet in height, but very easy to get down. One-half mile farther down, and on the right, Berry Brook adds its waters to the main stream. This brook has always been most unmercifully fished, yet I will venture the assertion that to-day it holds more trout than any stream of its size in the State. Below here, on the left, is Chapman Flat, at the lower end of which there lies one of the best pools on the river. I have had splendid fishing here, morning, evening and at night. Passing on down I soon come to where the bank on the right becomes a rocky precipice, near the edge of which stands a small building that always claims my attention; it is a very pretty log cabin, and it was built by a New Yorker, one who having for some time had a bad life, but being "born again," devoted his days to doing good among fallen women. He was Jerry McAuley, of Cremona fame.

Good water all along here. Two and one-half miles from Ellsworth's Dam there is an exceedingly large pool, and close by the rocks at one side it is quite deep. I have never had extra good luck at this pool, but there are times when the conditions in every way are O. K., and then this bit of water is a wonderfully good place for trout. On the 28th of July last, one fortunate angler who was staying with Davidson went down to this pool and took forty trout out of it; they just filled a twelve-pound creel, an average of a small fraction over four and three-quarter ounces

for each fish. One day during same month Rob Joscelyn, one of the country boys, while fishing deep along the rocks with bait, caught a German trout that weighed six pounds and three ounces; this is the largest trout ever caught in the Beaverkill. About one-half mile below there are four or five pools, in a bunch, one might say, and this is what may be aptly termed a very fishy place. I have caught more twelve and thirteen-inch trout here, twice over, than I have caught on any one mile of the river above or below. One mile farther and we strike Spring Brook, which heads away up in the mountains on the right. This brook has a splendid flow of water and plenty of trout. It was here a fine specimen of the German brown trout was caught by snare about July 15. This noble fish tipped the beam at the five pound and seven ounce notch, but the catcher was himself well snared afterward, and had to pay a fine of twenty dollars. From this point down to the bridge which crosses the river at the head of Westfield Flats, say two miles, and from the bridge to Rockland, one mile farther, or in fact, from this point down, I have never known the summer fishing to be good. During the spring time there are days when good baskets may be made near Rockland, Cook's Falls, Trout Brook, and even as far down as East Branch, where the dear old Beaverkill is forever lost in the East Branch of the Delaware River.

At the station of Trout Brook, which is on the south or left-hand side of the Beaverkill, a pretty good-sized stream, called Trout Brook, comes tumbling down the steep side of the mountains that stand between the valleys of the Beaverkill and the Delaware. This brook affords good fishing during the early season only. On the opposite side of the river and at Chestnut Grove, which is between Cook's Falls and Trout Brook, there is another brook (I forget its name), where fish can be caught any day during the season, but they are small.

Knowing the river well, I can confidently say that any angler that wants fish and locates below Beaverkill makes a great mistake. He had better go away above, but the one who makes headquarters at Beaverkill can work easily the four miles up stream and three miles below, in all seven miles, which are beyond all doubt the best of the Beaverkill.



## THE MUSIC OF THE MULTIPLYING REEL.

BY GUY HERNE.

They tell us of the music of the spheres,  
How the morning stars together sang so well;  
How Orpheus bravely overcame his fears  
And fiddled his fair lady out of hell;  
How David smote his harp so tunefully  
That he drove the black-blue devils out of Saul.  
How the Siren's song came sweetly o'er the sea  
And tempted all the seamen to their fall.

They tell of Wagner's wondrous harmonies,  
How with joy they strike their hearers deaf and dumb;  
Of the singing of the songbirds in the trees,  
Of the spirit-stirring military drum;  
They all are very fine, I do not doubt,  
But to me they don't so potently appeal  
As the dashing of the brook and the splashing of the trout,  
And the music of the multiplying reel.

## NOTES AND QUERIES.

[Under this Department Heading queries relative to Angling, Ichthyology and Fish Culture will be answered.]

### Important to Sullivan County Anglers.

The county of Sullivan, in this State, contains larger, more numerous and fruitful trout streams than any other section of New York; in fact, no portion of the United States, west or east of the Rocky Mountains, is so thoroughly gridironed with waters that have been from time unrecorded the natural home of the red-spotted trout. The Neversink, called by the Indians *Mahacamac*; the Upper and Lower Mongaup, *Mangawping* or *Mingwing* among the aborigines, and the Willowemoc, with their tributaries, about sixty in number, seam the mountain sides and valleys of a trout area embracing nearly one thousand square miles.

To this Waltonian Mecca thousands of devotees crowd every year, and it is not a matter of surprise that during the past season the trout fishing of this grand section has retrograded in number and size of fish taken. Various causes have been assigned for this unfortunate condition, but none seems to approach the root of the evil except that of illegal fishing, which, however, is practiced only in the open season, the close months being strictly observed even by the natives, the local sentiment being so opposed to fishing out of season that few, if any, violations of the law take place during that period. The glaring evils are:

Taking of undersized fish and failure to punish the offenders.

The basketing of trout under six inches is more frequent among city visitors than among the natives, although at the old angling resorts a very potent factor in operation to lessen this tendency is the partial social ostracism of the offenders by the better class of anglers gathering at these favorite hostleries, but this does not do away entirely with the

evil, and nothing but the strong arm of the law will eradicate it. Unfortunately, the class of people to whom this violation of the statute law is most quickly known, and in a measure condoned, are impressed with the idea that, to inform upon their neighbors, among whom they have lived for years, would show an uncharitableness, a meanness of spirit particularly unbecoming in a socially connected local community. Toward the transgression of another class, the vagrants of the villages, who own not an inch of ground or do an hour of honest labor, there is exhibited a strange timidity to enforce the law—a fear of consequences, a barn burned, a horse hamstrung or a hayrick dynamited.

How to meet and correct these conditions is a matter of vital interest to the visiting anglers of this county. The law is sufficiently explicit for all protective purposes; the penalties inflicted are prohibitory to second offences, and if the law is enforced, the great trout waters of Sullivan County will be without compare in any populated quarter of the globe.

A few choice angling spirits, feeling the force and consequences of the above-named conditions, met a few weeks ago, and, after a harmonious discussion of the matter, resolved to associate themselves as "The Fish and Game Protective Association of Sullivan County, N. Y." The working plan of the club, as gathered from the consensus of views of the anglers present at the preliminary meeting, may be announced as follows:

First, to place upon each of the three main streams, the Beaverkill, Willowemoc and Neversink, two wardens (six in all), who will be appointed assistant State game protectors, with full power to arrest and prosecute any

parties fishing out of season or by illegal methods, or taking trout less than six inches in length, that being the legal size as authorized under the present State law.

Second, To establish depots or obtain private ponds or waters over which the club will have exclusive jurisdiction, in which the young fry obtained from the State hatcheries will be deposited from year to year, and kept therein until they become of fishable size, to be then distributed to desirable and selected streams. In this connection, the subject of establishing a private hatchery on each of the three large streams was discussed and favorably considered, but in view of the expense thereof, action was deferred until the membership of the association was enlarged and the status of the club assured.

Third, that in the appointment or election of the executive committee, there shall be selected three members who are permanent residents, one on the Beaverkill, one on the Willowemoc and one on the Neversink. That these members of the executive committee shall have under their special charge the interests of the association on their respective streams, and the proper enforcement of the law in their districts.

Such is the basis upon which this important association will work. That the field is fruitful and that the necessity for immediate action exists cannot be disputed. Each season the evil grows, the laws are ignored and transgressors increasing, so that it is only a matter of a few years when this beautiful and responsive trout section will lose its high reputation, unless immediate action is taken in the line marked out as above.

This association should include every man who angles in Sullivan County waters; the cost of membership is only two dollars a year, and poor indeed in pocket, and more so in the *esprit de corps* of the craft, is the fisherman who will not contribute this mite to the good cause. Applications for membership can be made to the office of THE AMERICAN ANGLER,

to Mr. J. C. Anderson, General Passenger Agent New York, Ontario and Western Railroad (which corporation will contribute liberally to the objects of the association), or to any of the gentlemen named below, all of whom are members of the club, the incorporation papers of which are now being prepared:

H. P. Roberts, P. O. Box 768, New York.  
 Henry P. Townsley, 59 Cedar Street, New York.  
 Chas. W. Townsley, 59 Cedar Street, New York.  
 Thos. W. Olcott, 169 West 130th Street, New York.  
 Howard M. Olcott, 169 West 130th Street, New York.  
 Jay Martin, New York, Ontario and Western Railroad, New York.  
 Rev. S. DeLancey Townsend, 320 West 82d Street, New York.  
 W. D. Phillips, 77 Pine Street, New York.  
 Dr. C. E. H. Phillips, 23 West 47th Street, New York.  
 H. R. Harris, 110 Duane Street, New York.  
 Wm. C. Harris, 110 Duane Street, New York.  
 Dr. Herman E. Street, 98 Brooklyn Avenue, Brooklyn, N. Y.  
 Martin McMartin, 260 McDonough Street, Brooklyn, N. Y.  
 Hugh McCrossen, 377 Jefferson Avenue, Brooklyn, N. Y.  
 Jordan L. Snedecor, 1225 Bergen Avenue, Brooklyn, N. Y.  
 Eliphalet Snedecor, 1223 Bergen Avenue Brooklyn, N. Y.  
 A. Snedecor, 1221 Bergen Avenue, Brooklyn, N. Y.  
 Amos Smith, Brooklyn.  
 Theodore Gordon, Savannah, Ga.  
 John A. Schulze, Bingham House, Philadelphia, Pa.  
 Harris G. Rogers, Binghamton, N. Y.  
 John Evans, Binghamton, N. Y.  
 S. Hammond, Binghamton, N. Y.  
 W. F. Royce, De Bruce, Sullivan County, N. Y.  
 M. Cooper, De Bruce, Sullivan County, N. Y.  
 J. C. Fish, De Bruce, Sullivan County, N. Y.  
 Jay Davidson, Beaverkill, Sullivan County, N. Y.  
 W. H. H. Williams, Neversink, Sullivan County, N. Y.  
 Matt Decker, Willowemoc, Sullivan County, N. Y.

#### Hemlock Lake, N. Y.

I did not find the fish biting good at this lake. My highest catch was ten black bass (small-mouth) in one day, the largest bass weighing three and one-fourth pounds and the smallest one pound. I tried minnows, grasshoppers, angle worms and crabs for bait, with very slow biting. Crabs were the best bait. Caught a few black bass and pike in the evening, trolling with flies. A bright red or scarlet fly took the best. C. A. F.

WELLSVILLE, N. Y.

## In the Snapper Season.

[SCENE.—Three men fishing in a little boat. Three women fishing from the rocks close by.]

Flood (pulling in a fish)—“First blood.”

Ebb (pulling in a fish)—“This is business. I guess they are coming in now.”

Slackwater (pulling in a fish)—“In with you, boys.”

Mrs. Flood—“Each one of those men has caught a fish.”

Mrs. Ebb—“They said we could get them here, too, but see! Mr. Flood has just caught another one.”

Mrs. Slackwater—“And my husband’s got another, too.” (Calling) “I should think you might give somebody else a chance at that.”

Slackwater—“Don’t you have any bites, Henrietta?”

Mrs. Slackwater—“No, we don’t. The bobs haven’t bobbed once.”

Slackwater—“They haven’t fairly” (stops to pull in a fish) “commenced to run yet. You’ll get as many as we do in a minute.”

Flood (in undertone)—“Doubtful about that, The. They ain’t fishing in the channel.”

Ebb—“If we had a bigger boat—Genimi, but that’s a nice one! Look at him.”

Mrs. Ebb—“You men must have a hundred, I should think, the way you are catching them.”

Ebb—“Pshaw! We’ve only got two or three—little things at that. They’ll run larger by and by, and you’ll get ’em over there, too.”

Slackwater (softly—pulling two fish over the side of the boat and keeping between them and the ladies)—“By gracious! boys; they pull like bull dogs.”

Mrs. Slackwater—“Are they running yet, Theodore?”

Slackwater—“Well, you can hardly say they are, yet.”

Mrs. Slackwater—“How many do you think you’ll catch at a time when they do run?”

Flood (unhooking a fish and laughing

softly)—“I guess we’ll have to manage to get some of ’em out here, eh?”

Ebb (reeling furiously)—“We ought to, but my wife is afraid to stay in a boat unless I’m along, too.”

Flood (casting)—“So’s mine.”

Slackwater—“Two more, boys. My wife is that way, too.”

Mrs. Slackwater—“Can’t you come ashore, Theodore, and let Mrs. Ebb go out?”

Slackwater—“Why—yes—certainly.”

Ebb (in undertone)—“You’ll do nothing of the sort. I’ll go ashore my—damn it! I lost a nice one, then. I’ve got to ’tend to business better’n this.”

Mrs. Slackwater—“Well, why don’t you come, then?”

Ebb—“Do you *want* to come out. Emily?”

Mrs. Ebb—“Oh! I don’t know that I do. You come in and let Mrs. Flood go out.”

Ebb—“Heavens and earth! see those fellows jump!” (To Mrs. Ebb) “All right!” (To Flood, with assumed cheerfulness) “Pull up that anchor, old man.”

Flood (calling out)—“Do you want to come out in Mr. Ebb’s place, Lucy?”

Mrs. Flood—“I don’t believe I care about it. Why don’t you come in and let Mrs. Slackwater go out?”

Mrs. Slackwater—“I’ll tell you what we can do. Two of you men can come and fish off the rocks, and the other one can take us out there and bait the hooks while we fish.”

Slackwater (pulling in a fish)—“All right.”

Flood (pulling in a fish)—“We’ll do that.”

Ebb (pulling in a fish)—“By and by.”

Old gentleman in next boat (who always goes alone)—“For pure, unadulterated selfishness, give me the average man who goes a-fishing.”

C. H. A.

## Proper Baits for Large Black Bass.

I have again renewed your paper, as it is lonesome without it, although I do not fish much. The trout season is over and yielded a good many nice baskets of trout. The bass

season is wide open now, and good catches are frequent. In the small lakes about here are many perch and bass, and we have had the best success by catching a few small perch in the grassy edges along inlets and using them for bait, instead of minnows, frogs, bull-heads, crabs or helgramites, all of which are used, but the perch are the best, because they attract the four-pounders. Black crickets in June and September seem to catch the largest numbers, but as they are generally used for fishing from shore or for some other reason, the big ones are seldom taken with them.

At Elk Lake, near here, the other day, I noticed attached to an upturned stump nearly covered with water a mass of gelatinous matter, which looked outside like a large sponge. It was quite solid, heavier than water, and when torn from the stump showed a reddish or bloody tinge. There was as much as a bushel of it adhering to the stump, and it appeared shrunken above the water where the lake had lowered. What is it?

D. T. B.

MONTROSE, PA.

[If our correspondent will send us a piece of this sponge-like matter we will identify it. It is probably a fungus growth which has absorbed a great deal of moisture from the adjacent waters.—Ed.]

#### Keeping Frogs Alive as Bait.

I note remarks of one of your correspondents in the July number of *AMERICAN ANGLER* concerning "keeping frogs alive as bait." As is well known, members of this family go a long time without food, stuffing themselves, however, when opportunity arrives. On a recent trip in Maine I purchased frogs daily from the "youngsters" of the town, paying a cent each for the little jumpers. There came a bait famine, and the price went up to two cents, which I considered a swindle, and so determined to take my own bait along next time.

Having an opportunity to go again, I used

a box three feet long and eighteen inches square at the end, properly ventilated on the top. I filled this box almost completely with damp green moss, and therein placed three hundred little frogs. The journey to my fishing place occupied a day, and I remained there three days more. On the evening before my departure I liberated about twenty-five remaining frogs, all in prime condition. I did not feed them at all, and not a frog died. As a *day box* I used an ordinary small wire-topped box, with some moss inside. The frogs should be protected from the hot sun, as they sunburn very easily, and the moss should be kept moist. Feeding is not necessary for a week at least, as they will secure sufficient food from the moss itself. I have kept frogs in confinement as pets (and they are decidedly interesting ones, too) without feeding, except occasionally, and then in very small amounts. From examination of frogs' stomachs I judge they are not dependent upon insects, but feed also on tender vegetable growths partially decayed, in fact, almost any tender bit that they come upon.

I cannot recommend a covered tin pale for frogs, as it heats too readily in the sun. Any ventilated wooden box is far superior.

A. G. WEEKS, JR.

#### Protection on the St. Lawrence--A Fine Bass Score.

The present season forcibly demonstrates in two ways the necessity of yet more perfect laws in protection of the game fish of our lakes and rivers.

First, it is conceded that the shoals among the group of islands lying along the New York shore at the lower end of Lake Ontario are the greatest spawning beds for black bass in America, and in consequence the finest bass fishing in the world is had here. Until within a couple of years there has been no perceptible effect of the game laws upon the illegal net fishing which held sway over all these waters regardless of times or seasons.

Recently, however, and more particularly under the present Chief Game Protector, Major Pond, and his able lieutenant for this district, Mr. Joseph Northrup, the law has been strictly enforced, scores upon scores of nets have been destroyed, and the consequence is that the visiting sportsman finds some satisfaction in bass fishing.

While we shall have to wait another year before we can report catches of large bass, the following showing of a day's outing by some of the guests of the Algonquin Hotel brings me to my second assertion that, even with the law as it is, the number of bass is largely increased over that of two years ago, and that our legislators might so improve the existing law as to increase the quantity of game fish, and strike a happy medium between the netter and sportsman by which all might be satisfied and all go smoothly on.

Here is a list of catches which are, in truth, the result of not more than half a day's sport, most of these fish having been taken in a single forenoon: Geo. W. Weeks, 97 bass, weight 71 lbs.; O. T. Mackey, 98 bass, weight 87 lbs.; Clarence Fahnestock, 101 bass, weight 68 lbs.; W. P. Esterbrook, 92 bass, weight 73 lbs.; John Baldwin, 48 bass, weight 34 lbs.

All the above gentlemen, guests of mine host Potter, of the Algonquin, are New Yorkers, and know what good bass fishing is and where to look for it; and furthermore, the quantity, as well as sizes of fish taken by each, prove both my propositions.

CARLETON.

#### An Improvised Fly.

In turning the pages of "Gideon Fleyce," by Henry W. Lucy, a mediocre English novel published a decade ago, we chanced upon this choice paragraph for feather sharps, one of whom lately contended in our presence that a trout could differentiate the shades of color as shown in a mazarine blue dressing and one of robin blue tint. It is to be regretted that

our author did not tell us the shade of color in the red beard of this ingenious angler:

"I know a man, a first-rate fisher, who has the most extraordinary collection of flies I ever saw. They are made for fishing in all parts of the world except these islands. One he's rather proud of is made from a feather of a cock pheasant reared in Central Hungary, a thing no British fish would touch, however enticingly thrown. Of course he never uses any of them, but generally carries them about with him on his fishing expeditions, for, as he truly says, you never know what what may happen. I always make a point, when I meet him, of asking him whether he has yet tried his fly made from the feather of the Central Hungarian pheasant. But he admits it has never been on the water yet. The oddest fly I ever saw fished with was a part of the beard of a famous R. A., a man who, by the way, handles the rod with as much picturesque effect as he does the brush. I never saw a man cast a fly so prettily. He was fishing one day near Ardrishaig, and had caught nothing. He tried all he could, and all the flies in his book with the same result. At last he, in his wrath, caught hold of his red beard, nipped a bit of the end, and made a fly which, as sure as I'm an honest fisherman, filled his basket with trout."

#### Sawdust not Injurious to Black Bass.

I have just returned from a black bass trip to Maine, and am curious to see a few records of what may be termed "good sport" in bass fishing. The pond visited offers all the half-pound bass one can catch, with large fish very plenty. My best record was fourteen bass, weighing between two and a half and three pounds each, taken between 4 and 7 A. M.; the smaller fish I did not count. Would also mention that the best locality was at the edge of a large sawdust bank, within three hundred feet of a mill. I always supposed that much sawdust was injurious to fish of all kinds, but this experience teaches

me otherwise. At times the water was full of fine chips, with shavings on the surface so thick that casting was difficult. I presumed that the sawdust was an attraction rather than otherwise, as large fish were thick at this special point. Sawdust kills or drives away trout. How is it with the bass?

A. G. W., JR.

#### That Six-Pound Beaverkill Trout.

As much doubt exists as to the exact weight and circumstance of capture of that big Beaverkill trout, we give the facts as sent us by the editor of the *Reporter*, published near the scene of action:

Rev. Robert N. Joselyn of Minnesota, who is spending his vacation with his wife and child at his father's, Jewitt W. Joselyn, at Camorville, about four miles up the Beaverkill from Rockland, has proved himself to be the boss fisherman, as well as preacher, by catching a trout that tipped the beam at six pounds and three ounces. The trout was caught under the bridge, in front of his father's, in the day time, with hook and line. He caught another one that weighed over two pounds, which he has alive in a trough.

[Query—How many American trout were engulfed in the stomach of this big "Dutchman," as they call these monsters of the Beaverkill?—Ed.]

Anent the above Mr. J. C. Anderson, Grand Passenger Agent of the New York, Ontario and Western Railway, writes us under date of August 5:

"We have received a report of the largest trout yet captured in the Beaverkill on Friday, July the 29th. Mr. Joselyn caught a German brown trout with hook and line, using worm for bait, in the Beaverkill near the school house, four miles north of Rockland, which weighed six pounds and three ounces. The length of this fish was twenty-six inches and the girth fifteen inches.

"Mr. Frank Clark, of Jersey City, who is summering in that vicinity, reports that this fish had a mate, which they think is considerably larger than the one captured, and a great deal of time is being spent now to catch the other fish. We are in hopes we will have a record of it for the next issue of THE ANGLER.

It is too bad that you could not have captured these two while taking your summer outing at the Beaverkill."

#### Not Solely a "Meat" Contest.

We do not call to mind any sporting journal that has more faithfully upheld the anglers' interests than THE AMERICAN ANGLER. It has been particularly bitter against hogs and hog fishing, and as a rule, very carefully kept from its columns anything that would give such people a semblance of approval. It is to be regretted, therefore, that in its July issue it took a very sad tumble from grace, in publishing the score of the Anglers' Club of Canandaigua, made at its recent fishing contest.

According to the published account in THE AMERICAN ANGLER, there were some fifty-one participants in this contest, and the result of one day's fishing was a total catch of 6,642 pounds, an average of 130 pounds per man. It seems incredible that any such score could have been made with rod, hook and line. But if true, it shows, instead of an angling contest, a hog contest in which every contestant was a winner. It seems to us the duty of every paper pretending to be in the angler's interest to condemn such affairs in unmeasured terms, rather than give any possible pretence for the members of this so-called Anglers' Club to think that such doings are sportsmanlike, for they are not; they savor of the pot fisherman, and are morally criminal, in that such catches would in short order rob any water of its rightful inhabitants.—*Times-Union, Albany, N. Y.*

[THE AMERICAN ANGLER for August contained an editorial note referring to the above contest, in which the following paragraph appeared: "The result of the recent contest is in evidence that excellent fishing exists in the lake, despite the devastations of the gill nets and set lines continually used by poachers. A typographical error made the scores of the contest given in the July ANGLER appear as *pounds*. It should have been *points*."

The aggregate weight of fish taken was 472½ lbs. While we do not approve of wholesale slaughter of fish nor of "meat" contests, we must not overlook the condoning facts that none of these fish were wasted, and that no individual rod took more than 10½ lbs. of fish.—Ed.]

#### Fine Casting is not Always a Factor.

"D. C. B." is very much worried over the matter of ill success during his late trout outing, when some of his companions, who were not as skillful with the rod as he is,



made good scores. He wants light on the subject, and as we are somewhat hurried, being just on the eve of a black bass outing, we give him the benefit of Mr. Charles Hall's views, written to us some years ago, which we endorse entirely:

—

Assuredly "bookish wisdom" and finical acquirements do not make the fisherman. Militia soldiers on dress parade may present as effective an appearance as veteran regulars, but something besides toggerly and efficiency in the manual of arms is required to make a good fighter. An angler with superfine tackle and rig may astonish the natives by his professional make-up, but unless he "understands the habits of the fish and the character" of the water he fishes, he will make but a poor fist of his angling. His deft manipulation of the rod will scare more fish than it will attract, and all his frequent changing of flies and monkeying with his patent shop contrivances will only lessen his chances of filling his creel. If a gunner be restless and uneasy in the "blind," you may be sure the geese will veer and fly high.

There is a closer analogy between hunting and fishing than many people affect to believe. I am always surprised when I do not perceive the same caution exercised in approaching the denizens of the rivers as the founa of the forests. The ostrich with his head in the sand is not more foolish than the man who fancies the fish cannot see him because he cannot see them. A practised eye will detect a motionless fish or a glancing flash in the stream where one who is unaccustomed is unable to discover it after it is plainly pointed out. One should approach an eligible part of the stream with unvarying discretion, even though it appears to be barren. Hundreds of *soi disant* anglers ruin their chances at the outset by the clumsy manner in which they approach the timid creatures which they propose to entice and lay hands on. If market gunners behaved in like manner, utterly

ignoring the first principles of drawing on game, our city epicures would get no canvas-back ducks. A great deal more is included in a "knowledge of habits" than consists in the mere superficial understanding of what fish eat, how they live and what will attract them best or bring them safe to bag. If it be true of the forest, it is equally true of the brooks, that too much beating about the bush defeats its ends. The silent hunter or angler, and quiet methods, secure the goodlier results. If opinionated tyros only knew by what great painstaking baskets are sometimes filled, they would discover that they have something yet to learn in order to attain the acme of high art. A farmer's boy will crawl on his belly for twenty yards in order to get at a big trout under the bank, and ten to one he will yank him out. Herein he developes several requisite qualities of a true angler. He is familiar with fish habits, and he exercises caution and patience—without which success would be impossible. It is by the application of these that the tow string is able to discount the silk line and reel. Books do not impart the practical information which that lad possesses. I once met a party on the Nepigon, late in the season, who had been fishing all the choice places along shore where fish abound earlier, and had taken none. I took them in a canoe to a riff in mid-stream, where a small island divided the current, and they caught a boat load. You see, a man may be a prize winner at a fly-casting tournament and yet have no "luck" on the streams.

It is not my purpose in these desultory notes to discuss low-grade and high-grade angling. Of course a masterly cast with the fly will pick up a fish which a gob and wattles can't reach. We all understand that, and we have long been familiar with the logic which, from the days of Saladin, prefers dexterity to brute force, commending that which soars above the thing which grovels. I am simply trying to show where those who attempt to practice high-grade angling are de-

ficient, and that many who talk by the book are but bunglers in the art. It is not every man who can talk horse that is able to keep his saddle. Some pretenders may have the written code at their tongue's end, whereby they mystify the credulous; but they never can deceive a veteran. An expert can read them off-hand and detect their short-comings the instant they step toward the animal to take hold of the rein or put a foot in the stirrup. It is so with the man who handles rod or paddle. It is not necessary to take him to the river side to size him up. An apparently insignificant movement will give him away. It is the same with the man who takes hold of a gun or ax, billiard cue, foil or Indian club; who steps into a carriage or a boat, or enters a drawing room. Ignorance cannot be disguised. It is the companion of awkwardness, and the two go always hand in hand.

One chief reason why most anglers fail is because they don't keep their eyes on their work. I do not believe that a short-sighted individual can be perfectly successful. He must miss a great many fish that rise. An angler should never take his eye off the water. It should follow with constant vigilance the vagaries of his flies. He should retrieve his line as seldom as possible; be sure always to strike the instant he *thinks* he detects a gleam. I have trout fishing especially in mind while I write. It is *sui generis*, whatever may be said of fly fishing in its general application to fish of other sorts. With respect to salmon, the rule of striking at sight does not apply at all, quite the reverse being the practice. The motion of a trout is often quicker than the glance of the human eye, and unless the angler is on the alert the trout will have seen and investigated the lure before a contemptuous flap of the tail has made the angler aware that he has come and gone. Often an upward lift of the rod tip will hook a fish whose presence was not suspected at all, the barb fastening to its tail, side or gill. Such incidents as these have given rise to the

notion that trout knocked the flies into their mouths with their tails.

One object of wading a stream is to avoid observation. Proper wading is the most deliberate operation imaginable. A good wader will scarcely roil the water in a mill tail. He will often pick up a score of fish without moving more than a couple of rods. The fish will so little heed him that they play about his legs. I have often waded through a school collected in a long reach of fairly deep water, and then getting out on the bank and going back to the beginning, fished the same pool a second and third time with tolerable success. Wading also enables the angler to cover water that he could not otherwise reach, and it permits him to fish with a short line. It is a great mistake to fish with a line that is not under complete control. I never attempt a long cast except when fishing fine in a dead calm, with the minutest flies, on a broad surface. Then only is the ability to deliver a long line an enviable qualification. There is a great difference between stream fishing and pond fishing. A long line is like a long-range sharpshooter's telescope rifle—intended to bring game where less effective weapons fail. A thirty-yard or even twenty-yard line, laid evenly out on the wings of a masterly cast, is an exquisite performance, but the accomplishment is seldom of practical use in angling—excepting for salmon.

I remember once an amusing incident at Ridgewood, Long Island, where a visitor was permitted to fish an artificial pond of liver-fed trout, which were in the habit of rushing *en masse* after anything thrown in, until they fairly made the water boil. Of course they were not afraid of man at feeding time, though they were a little shy on off hours, and of course our ambitious angler took a fine trout at the very first cast, standing in full view upon the bank. If he had had a "trot" line he could have taken two dozen on as many hooks. After playing him well to creel, enjoying the suspense of a well-hooked captive

for several minutes, he cast again, expecting a repetition of the same old rush, but nary rush did he perceive. A fingerling or two broke gingerly at his tail fly, but the most persistent persuasion failed to fasten another trout.

*Hæc fabula docet* that dead failures are possible in the best stocked waters, and that the shoemaker is worthy of his last—or words to that effect.

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#### In the Near Northwest.

After we have once indulged in the pleasures incident to camp life, have rowed, fished or hunted, or, if more artistically inclined, have sketched the most impressive of our surroundings, we are happily spoiled for life. On the next return of the summer we are sure to experience an almost abhorrent distaste for life among the bricks and business hustle of city life. In vain we try something that has often before proved a diversion. It is no use.

I never got the vacation fever in its apparently incurable form until I had spent a few months in that part of Her Majesty's dominions that skirt the Canadian Pacific Railroad from Winnipeg east, as far as a point opposite Michipicoten, an old Hudson Bay trading post. This belt of territory possesses all the intoxicating features for a pleasure trip. Almost every variety of landscape is presented, and game and fish and fur are abundant.

My first stop was at Whitemouth, in Eastern Manitoba. There are numerous pretty camping sites along the Whitemouth River. Ruffed grouse are exceedingly abundant, and there is no lack of black bear and moose. A couple of weeks spent here will well repay one in the way of plethoric game bags and pleasing surprises of enchanting scenes, most of which are exceedingly wild and weird.

At Eagle River we are presented with all the fantastic styles of waterfalls and rapids.

Sometimes they are laughing, sometimes rushing, sometimes leaping, then curling, and so on in endless variety. And here, if you are a hunter bred, you will surely wish for a Winchester. From Cross Lakes to Port Arthur the country is cut into every variety of pattern, with lakes that tempt the art of the angler.

Whatever else we may deny ourselves, we will surely not fail to visit Nepigon, the trout stream *par excellence* of the world. Whether we hunt or fish, sketch or lie idle in camp, whether we are statesmen or poets seeking rest or inspiration, the vicinity of Nepigon cannot fail to entrance us. Perhaps nowhere else upon the continent would the tired man of business find everything for recreation so complete, or the artist so much to satisfy his æsthetic tastes, or the fisherman such rich rewards of big ones as his score.

We recreate because it pays; because over-taxed bodies or brains must be refreshed or fail altogether. Or we recreate to get into close communion with Nature and with God. The statesman, the artist, the author, are alike benefitted and inspired. There may be serious objections of a moral or social nature to summering at many of the fashionable seaside resorts. But none of these can be urged against an outing amid the primeval beauties of Nature.

N. R. PIPER.

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#### Canandaigua Lake.

The fishing here is excellent; have been here a month and fished nearly every evening, with light rod and flies, and have taken perch, rock bass, pickerel, chub and black bass, the latter from two to three and a half pounds in weight, and the darker the night the better the sport. A red perch was taken here a few days ago; it was six or seven inches long, but before I had an opportunity of seeing it, was used as a lure for salmon trout.

THOS. W. FRaine.

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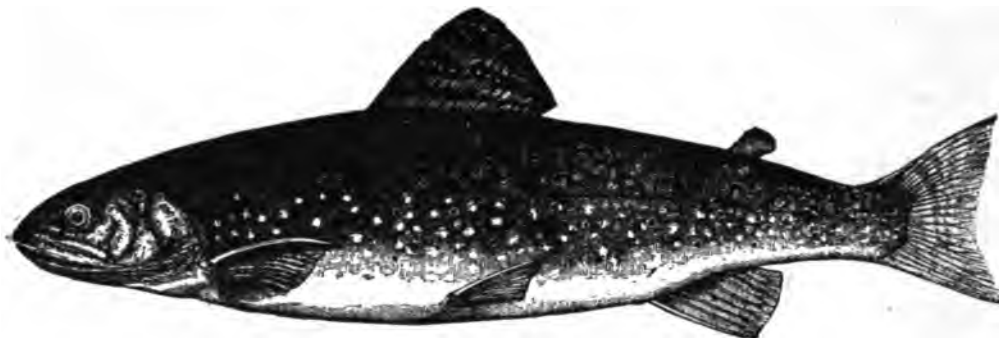
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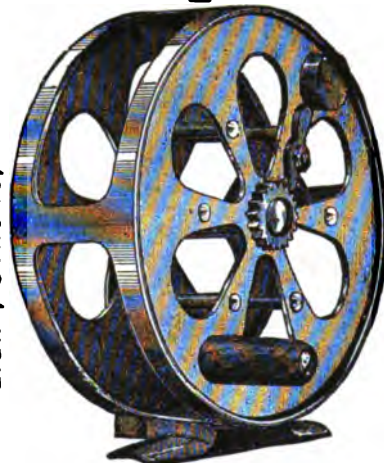
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